



**18th International Conference on the
Computation of Electromagnetic Fields**

www.compumag2011.com

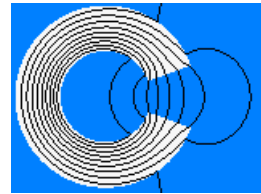
TECHNICAL PROGRAM



SPONSORS AND EXHIBITORS



University of Technology, Sydney
(UTS)



International Compumag Society
(ICS)



Griffith University



University of South Australia
(UniSA)



HTS-110 Ltd., New Zealand



Computer Simulation Technology
(CST)



LEAP Australia Pty Ltd



ANSYS INC, USA

MESSAGE FROM CONFERENCE CHAIRMEN

Since 1976, COMPUMAG has been an exciting and effective forum for researchers in the field of computational electromagnetics all over the world to present their research findings and exchange new ideas. Thanks to the enthusiasm and efforts of those researchers, the computational electromagnetics is playing a more and more important role in the design optimisation of novel electromagnetic devices and systems, and the software for numerical field analysis is becoming a booming industry.

The 18th International Conference on the Computation of Electromagnetic Fields (COMPUMAG2011) is to be held on 12-15 July 2011, in Sydney Convention and Exhibition Centre, Darling Harbour, Sydney, NSW, Australia. The aim of the Conference is to discuss recent developments and practical applications in the numerical computation of electromagnetic fields for engineers and physicists engaged in the design and analysis of electromagnetic devices. Reflecting the new trends and rapid progress in the field, authors from 35 countries or regions submitted 756 original and previously unpublished contributions, covering research topics including Static and Quasi-Static Fields, Wave Propagation, Electromagnetic Compatibility, Nano-Electromagnetic Computation and Applications, Bio-Electromagnetic Computation and Applications, Non-destructive Electromagnetic Inspection and Applications, Photonics, Material Modelling, Coupled Multi-physics Problems, Optimization and Design, Numerical Techniques, Software Methodology, Electric Machines and Drives, Devices and Applications, Education, and Benchmarking (TEAM). After a rigorous peer review process, the Editorial Board finally accepted 658 papers for oral and poster presentations to the conference.

On behalf of the organising committee and the editorial board, we sincerely welcome you to Sydney to attend the COMPUMAG2011 conference.

As one of the largest cities in the southern hemisphere, Sydney has a great deal to offer to its visitors. Besides the natural beauties and famous constructions, such as the Harbour Bridge and the Opera House, Sydney features a unique blend of multiple cultures. In Sydney, you can find people from almost anywhere in the world, and you can enjoy different cuisine styles, such as French, Italian, Japanese and Chinese.

The conference venue, the Sydney Convention and Exhibition Centre, is located in the beautiful and exciting Darling Harbour, in the heart of Sydney and the most popular destination for international visitors and locals alike. It is next to the central business district and has many exciting attractions and events every day.

Dear friends, let us work together to make COMPUMAG2011 a new success in the COMPUMAG history!

Thank you.

Prof. Jianguo Zhu
Chairman, COMPUMAG2011

Prof. Junwei Lu
Co-Chairman, COMPUMAG2011

Prof. Andrew Nafalski
Co-Chairman, COMPUMAG2011

LOCAL ORGANISING COMMITTEE

Chairman

Prof. Jianguo Zhu, University of Technology, Sydney, Australia

Co-Chairmen

Prof. Junwei Lu, Griffith University, Australia

Prof. Andrew Nafalski, University of South Australia, Australia

Editorial Board

Prof. Norio Takahashi, Chairman, Okayama University, Japan

Dr. Youguang Guo, Co-Chairman, University of Technology, Sydney, Australia

Dr. David Dorrell, Co-Chairman, University of Technology, Sydney, Australia

Secretariat

Dr. Zhi Wei Lin, University of Technology, Sydney, Australia

Team Members

Ms. Enid Tu, University of Technology, Sydney, Australia

Dr. Jianbin Zeng, Shenyang University of Technology, Liaoning, China

Dr. Gang Lei, Huazhong University of Science and Technology, Wuhan, China

Dr. Haiyan Lu, University of Technology, Sydney, Australia

Dr. Yongchang Zhang, University of Technology, Sydney, Australia

Dr. Wei Xu, University of Technology, Sydney, Australia

Mr. Jiefeng Hu, University of Technology, Sydney, Australia

Mr. Tianshi Wang, University of Technology, Sydney, Australia

Mr. Md Rabiul Islam, University of Technology, Sydney, Australia

Mr. Hung Dung Pham, University of Technology, Sydney, Australia

Contact

Postal Address: School of Electrical, Mechanical and Mechatronics Systems
University of Technology, Sydney
P.O. Box 123, Broadway, NSW 2007, Australia

Telephone: +61 2 9514 2318

Fax: +61 2 9514 2702

Email: Editorial Board: editorial@compumag2011.com
Secretariat: secretariat@compumag2011.com

INTERNATIONAL COMPUMAG SOCIETY BOARD

Honorary President:	Dr. Bill Trowbridge (UK)
President:	Prof. Arnulf Kost (Germany)
Secretary:	Prof. Jan Sykulski (UK)
Vice-President (The Americas):	Prof. David Lowther (Canada)
Vice-President (Asia and Oceania):	Prof. Norio Takahashi (Japan)
Secretary (The Americas):	Prof. João Pedro Bastos (Brazil)
Board Members:	
Prof. Piergiorgio Alotto (Italy)	Dr. Oszkar Biro (Austria)
Prof. Zhenmao Chen (China)	Prof. Herbert de Gersem (Belgium)
Prof. Andrzej Demenko (Poland)	Dr. Patrick Dular (Belgium)
Mr. Behzad Forghani (Canada)	Prof. Kay Hameyer (Germany)
Prof. Nathan Ida (USA)	Prof. Hajime Igarashi (Japan)
Prof. Hyung-Kyo Jung (Korea)	Prof. Chang-Seop Koh (Korea)
Dr. Doug Lavers (Canada)	Prof. Jaime Ramirez (Brazil)
Dr. Zhuoxiang Ren (USA)	Dr. Stephan Russenschuck (Switzerland)
Dr. Viviane Cristine Silva (Brazil)	Prof. Dexin Xie (China)
Prof. Shiyong Yang (China)	Prof. Jianguo Zhu (Australia)

EDITORIAL BOARD

Chairman: Norio Takahashi, Okayama University, Japan
Co-Chairman: Youguang Guo, University of Technology Sydney, Australia
Co-Chairman: David Dorrell, University of Technology Sydney, Australia

Editors:

João Pedro Bastos, Universidade Federal de Santa Catarina, Brazil
O. Biro, Graz University of Technology, Austria
Takashi Todaka, Oita University, Japan
Y. Jay Guo, Wireless Tech. Lab., CSIRO, Australia
Kay Hameyer, Aachen University, Germany
H. Igarashi, Hokkaido University, Japan
C.S. Koh, Chungbuk National University, Korea
Erping Li, A-STAR, Singapore
Junwei Lu, Griffith University, Australia
Tetsuji Matsuo, Kyoto University, Japan
O.A. Mohammed, Florida International University, USA
K. Muramatsu, Saga University, Japan
Andrew Nafalski, University of South Australia, Australia
József Pávó, Budapest University of Technology and Economics, Hungary
Dexin Xie, Shenyang University of Technology, China
Xinqing Sheng, Beijing Institute of Technology, China
Shiyong Yang, Zhejiang University, China
Jianguo Zhu, University of Technology Sydney, Australia

Guest Editors:

Piergiorgio Alotto, Università di Padova, Italy
Nathan Ida, The University of Akron, USA
Hyung-Kyo Jung, Seoul National University, Korea
Sheppard Salon, RPI, USA

Members:

Ahmed, Iftikhar	Brauer, John R
Albanese, Raffaele	Buchau, Andre
Alfonzetti, Salvatore	Burais, Noel
Alotto, Piergiorgio	Buret, François
Antonopoulos, Christos	Byun, Jin-Kyu
Arjona Lopez, Marco A	Canova, Aldo
Außenhofer, Stefan	Cardoso, Jose Roberto
Badics, Zsolt	Carpentieri, Mario
Bardi, Istvan	Cesar, Amilcar Careli
Barmada, Sami	Chabu, Ivan
Bastos, João Pedro Assumpção	Chadebec, Olivier
Batistela, Nelson Jhoe	Chan, Tze-Fun
Belahcen, Anouar	Chen, Dezhi
Bi, Chao	Chen, Zhenmao
Biro, Oszkar	Cheng, Zhiguang
Bouillault, Frédéric	Chiampi, Mario
Brandstaetter, Bernhard	Choi, Charles T. M.
Brauer, Hartmut	Choi, Kyung

Ciuprina, Gabriela
 Clemens, Markus
 Clénet, Stéphane
 Coco, Salvatore
 Codecasa, Lorenzo
 Coulomb, Jean-Louis
 Cranganu-Cretu, Bogdan
 De Gersem, Herbert
 De Vasconcelos, João Antonio
 Demenko, Andrzej
 DI BARBA, Paolo
 Di Rienzo, Luca
 Dolinar, Drago
 Dorrell, David
 Duffy, Alistair
 Dufour, Stephane
 Dughiero, Fabrizio
 Dular, Patrick
 Dupre, Luc Rafael
 Dyck, Derek
 Dyczij-Edlinger, Romanus
 Faiz, Jawad
 Feliziani, Mauro
 Ferreira da Luz, Mauricio Valencia
 Figueroa, Hugo E. H.
 Forghani, Behzad
 Formisano, Alessandro
 Fresa, Raffaele
 Freschi, Fabio
 Fu, Weinong
 Geuzaine, Christophe
 Giannacopoulos, Dennis D.
 Gol, Ozdemir
 Golosnoy, Igor
 Gotoh, Yuji
 Gratkowski, Stanislaw
 Guo, Y.J.
 Guo, Youguang
 Gyimothy, Szabolcs
 Gyselinck, Johan
 Hameyer, Kay
 Hantila, Florea Ioan
 He, Renjie
 Ho, Siu Lau
 Hong, Jung-Pyo
 Hsieh, Min-Fu
 Ida, Nathan
 Igarashi, H.
 Ikuno, Soichiro
 Ishikawa, Takeo
 Iwashita, Takeshi
 Janssen, Rick

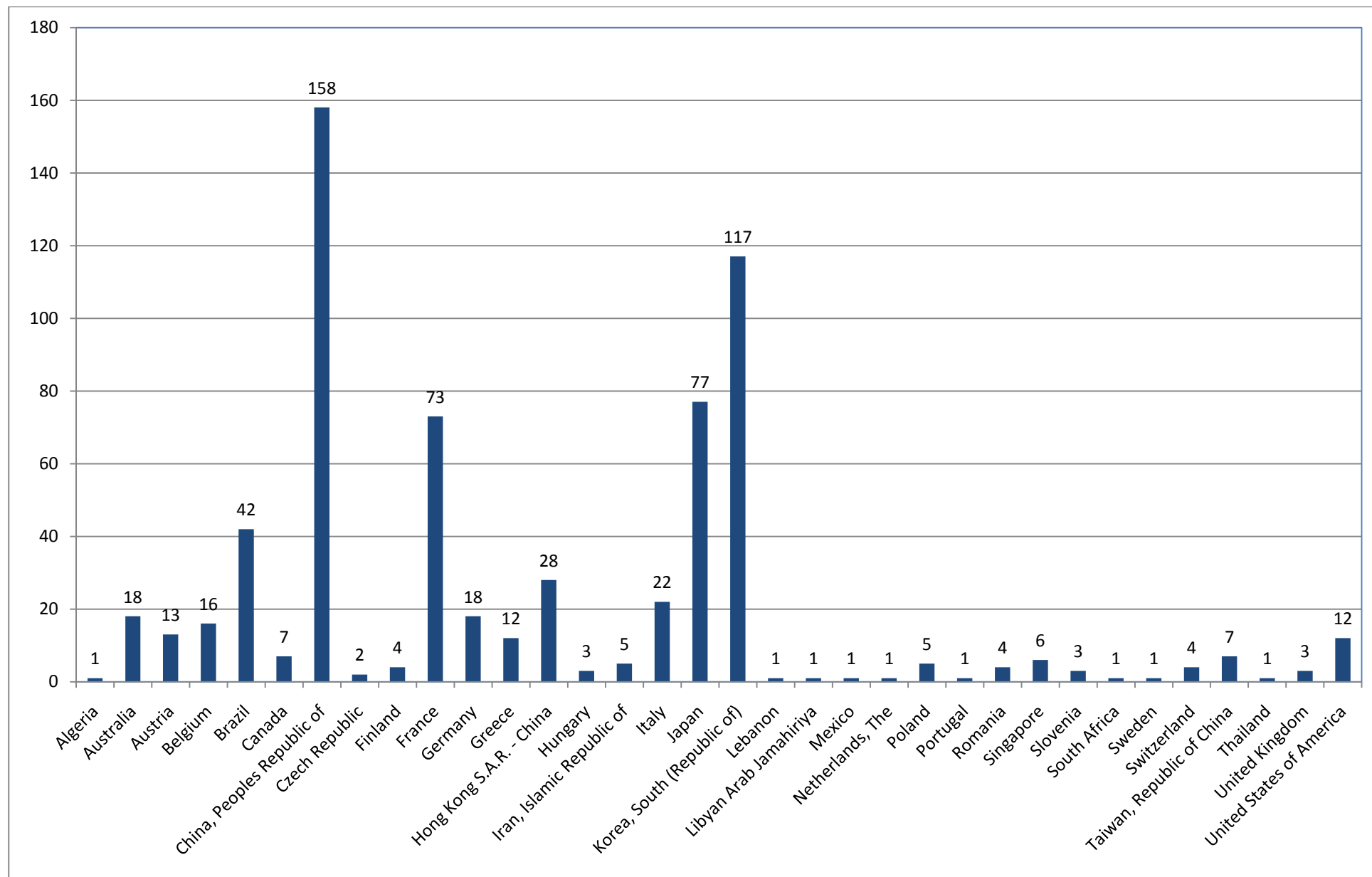
Jung, H. K.
 Kacprzak, Dariusz
 Kaltenbacher, Manfred
 Kamitani, Atsushi
 Kanai, Yasushi
 Kanayama, Hiroshi
 Kangas, Jari
 Kasper, Manfred
 Kawaguchi, Hideki
 Kawase, Yoshihiro
 Kettunen, Lauri
 Kim, Chang Eob
 Kim, Dong-Hun
 Kim, Hyeong-Seok
 Kiwa, Toshihiko
 Knight, Andrew
 Koh, C.S.
 Kost, Arnulf
 Kotiuga, P. Robert
 Krahenbuhl, Laurent
 Kuczmanski, Miklós
 Kuo-Peng, Patrick
 Kurz, Stefan
 Lavers, Doug
 Le Menach, Yvonnick
 Lebensztajn, Luiz
 Lee, Jin-Fa
 Lefevre, Yvan
 Leite, Jean Viane
 Lesselier, Dominique
 Li, Dongying
 Li, Erping
 Li, Lin
 Ling, Yueshen
 Lowther, David
 Lu, Junwei
 Lu, Tiebing
 Magele, Christian
 Maradei, Francesca
 Marchand, Claude
 Marinova, Iliana
 Martone, Raffaele
 Mastuo, Tetsuji
 Mazauric, Vincent Georges
 Mesquita, Renato Cardoso
 Meunier, Gerard
 Miyagi, Daisuke
 Mohammed, Osama
 Monebhurrin, Vikass
 Morabito, Francesco Carlo
 Mungkung, Narong
 Munteanu, Irina

Muramatsu, Kazuhiro
Nabeta, Silvio
Nafalski, Andrew
Nervi, Mario
Ni, Guangzheng
Nicolas, Laurent
Nicolet, Andre
Nishiguchi, Isoharu
Noguchi, So
Okamoto, Yoshifumi
Pavo, Jozsef
Perrussel, Ronan
Perugia, Ilaria
Pichon, Lionel
Piriou, Francis
Poeplau, Gisela
Popescu, Mircea
Preis, Kurt
Premel, Denis
Qi, Lei
Qu, Ronghai
Raffetto, Mirco
Rahman, Faz
Ramirez, Jaime Arturo
Rao, Liyun
Rapetti, Francesca
Razek, Adel
Reinhard, Wolfgang Hoefer Johannes
Ren, Zhuoxiang
Renhart, Werner
Repetto, Maurizio
Reyne, Gilbert
Rischmueller, Volker
Rodger, David
Rucker, Wolfgang M.
Russenschuck, Stephan
Sabariego, Ruth V.
Sadowski, Nelson
Sartori, Carlos
Savini, Antonio
Schlensok, Christoph
Schmidt, Erich
Schuhmann, Rolf
Shao, K.R.

Silva, Viviane Cristine
Soong, Wen
Specogna, Ruben
Stumberger, Bojan
Suuriniemi, Saku
Sykulski, Jan
Szabo, Zsolt
Szucs, Aron
Takahashi, Norio
Takahashi, Yasuhito
Takorabet, Nouredine
Tanabe, Shinji
Todaka, Takashi
Trevisan, Francesco
Trlep, Mladen
Tsiboukis, Theodoros
Tsuboi, Hajime
Tsukerman, Igor
Van Rienen, Ursula
Vandeveld, Lieven
Veszely, Gyula
Villone, Fabio
Vollaire, Christian
Wakao, Shinji
Wang, Shuhong
Wang, Yi
Wang, Youhua
Watanabe, Kota
Watterson, Peter
Webb, Jon
Wei, Xingchang
Wurtz, Frederic
Xie, Dexin
Xu, Guizhi
Yamazaki, Katsumi
Yan, Weili
Yang, Shiyong
Yatchev, Ivan
Yu, Haitao
Zhao, Weijiang
Zheng, Ping
Zhou, Ping
Zhu, Jianguo
Zou, Jibin

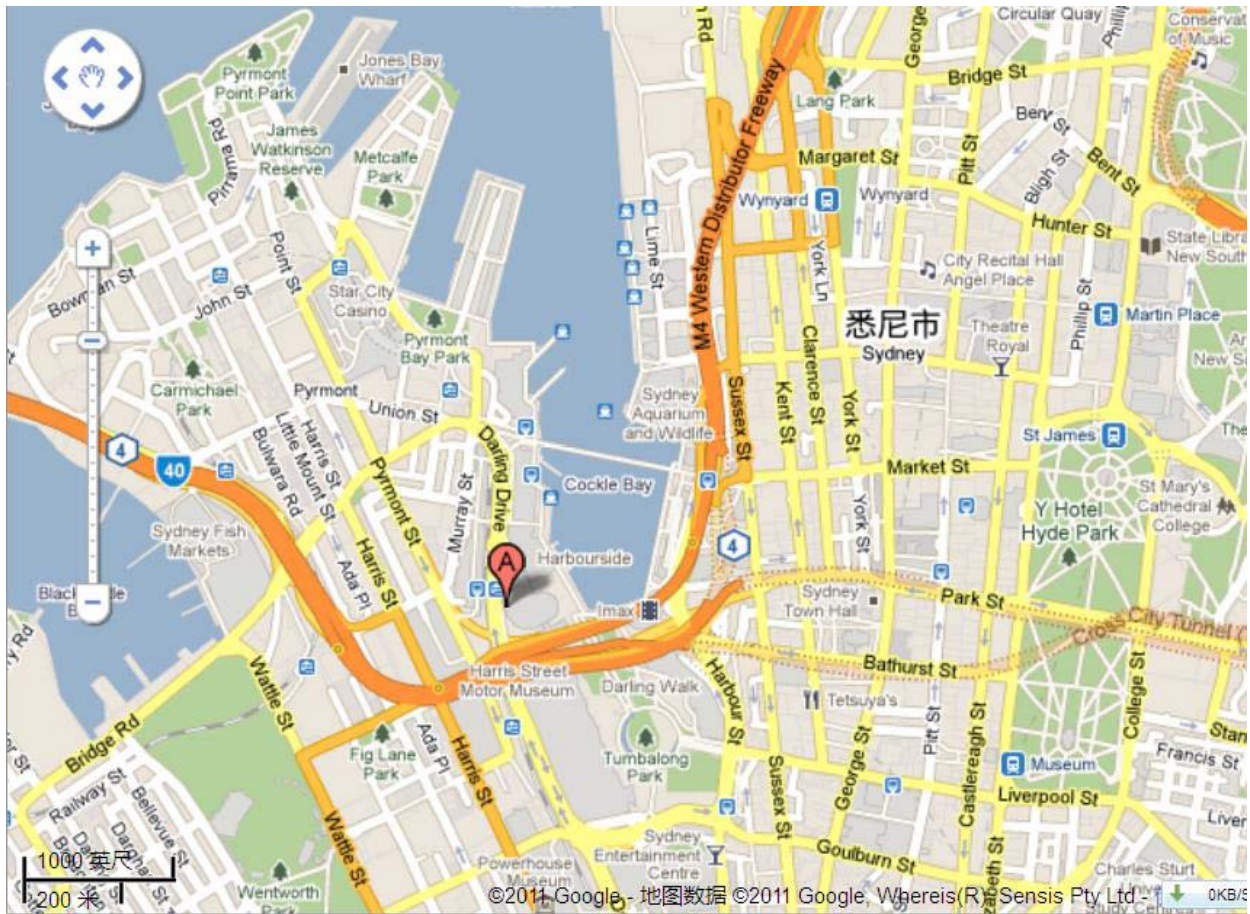
NUMBER OF ACCEPTED PAPERS BY COUNTRIES OR REGIONS

Country / Region	Number of Papers
Algeria	1
Australia	18
Austria	13
Belgium	16
Brazil	42
Canada	7
China, Peoples Republic of	158
Czech Republic	2
Finland	4
France	73
Germany	18
Greece	12
Hong Kong S.A.R. - China	28
Hungary	3
Iran, Islamic Republic of	5
Italy	22
Japan	77
Korea, South (Republic of)	117
Lebanon	1
Libyan Arab Jamahiriya	1
Mexico	1
Netherlands, The	1
Poland	5
Portugal	1
Romania	4
Singapore	6
Slovenia	3
South Africa	1
Sweden	1
Switzerland	4
Taiwan, Republic of China	7
Thailand	1
United Kingdom	3
United States of America	12



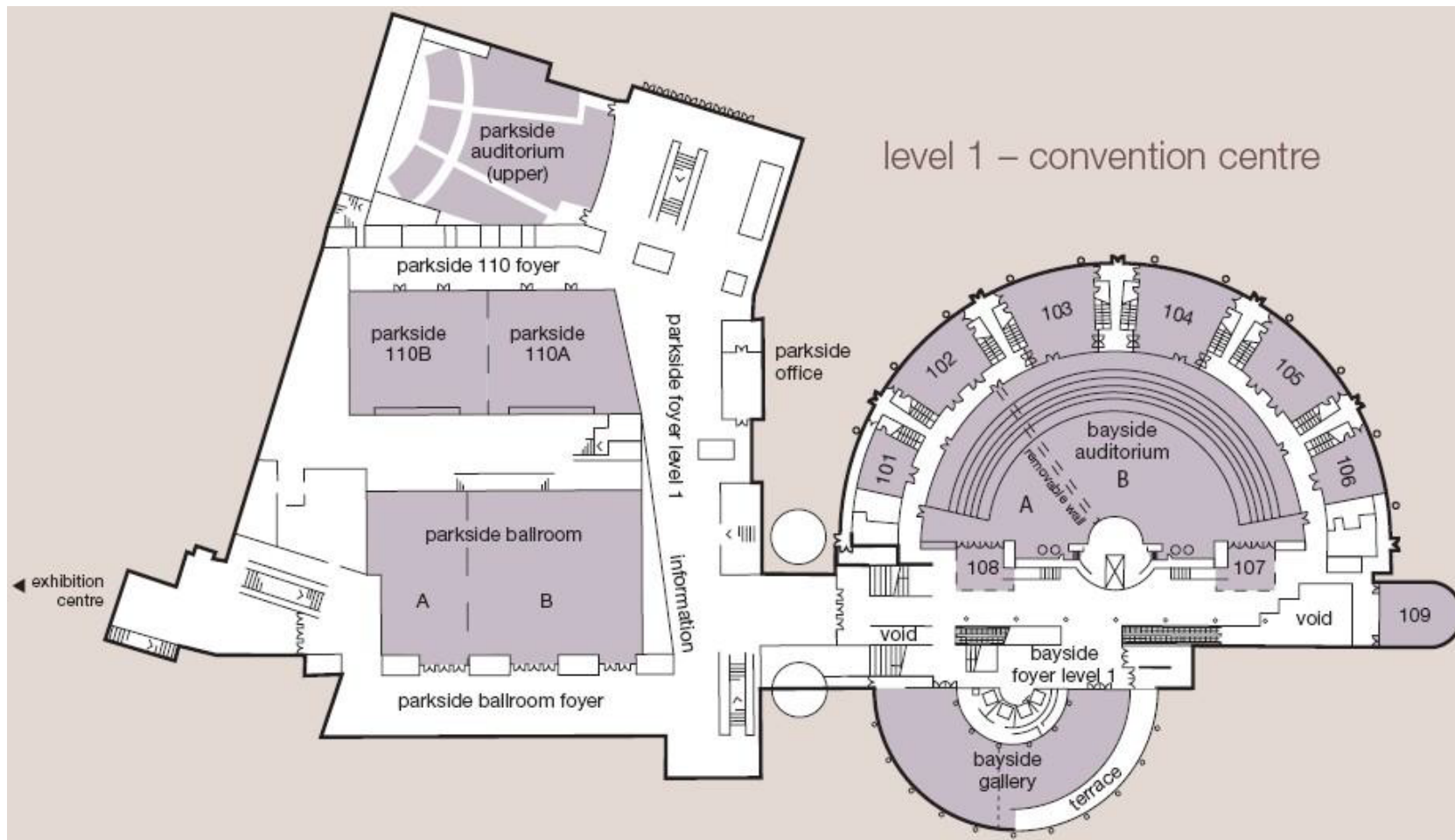
CONFERENCE VENUE AND FLOOR PLAN

Venue: Sydney Convention and Exhibition Centre
Darlingharbour, Sydney, NSW, Australia



Floor Plan:

- Welcome Reception – Bayside Terrace;
- Opening Ceremony, Plenary Oral Sessions, Sponsors' Workshops, and Closing Ceremony – Bayside Auditorium;
- Poster Sessions – Bayside Gallery
- Speaker Preparation Room – Room 108, Bayside



GENERAL INFORMATION

- Registration Desk:** Bayside Foyer Level 1
15:00 – 20:00, Monday 11 July 2011
8:00 – 17:00, Tuesday 12 – Thursday 14 July 2011
8:00 – 16:00, Friday 15 July 2011
- Welcome Reception:** Bayside Terrace
18:30 – 20:30, Monday 11 July 2011
- Tea/Coffee and Lunch:** Bayside Gallery
Tuesday 12 – Friday 15 July 2011
- Conference Dinner:** Sydney Showboat, King Street Wharf 5
(near Sydney Aquarium and Wild Life, Darling Harbour)
18:00 – 18:30 Boarding (finger food served during boarding)
18:30 Boat departing
18:30 – 18:50 Seating at tables
18:50 – 19:40 Three course dinner
19:40 – 20:10 Speeches
20:10 – 21:00 Performance
- ICS Board Meeting:** Bayside Room 107
18:00 – 21:00 Tuesday 12 July 2011
(ICS Board members only)

AUTHOR INFORMATION

- Oral Presentation:** Each oral presentation is allocated 30 minutes with 25 minutes for presentation and 5 minutes for questions. Presenters may use Bayside Room 108 for preparation of their presentations.
- Poster Presentation:** Each poster presentation will be allocated an area of 180 x 120 cm² (width x height). While the authors may use their own poster templates, we have placed two poster templates in portrait (90 x 120 cm²) and landscape (120 x 90 cm²) orientations on the conference website (www.compumag2011.com).
The duration of each poster session is one hour. Presenters are required to post their presentations five minutes before the session starts.
- Attendance:** The session chairs will check the presentations in each session, and the “no-show” papers will not be reviewed for possible journal publication in IEEE Transactions on Magnetics.

RITA TROWBRIDGE AWARD

– A prize to a young researcher in memory of Rita Trowbridge

Criteria and Conditions:

1. The prize will be presented to a young researcher, who is a participant of the conference and registered as a student.
2. The paper may be co-authored, but the young researcher must have contributed significantly, the evidence of this may be demonstrated for example by the fact that he/she is listed as the first author.
3. The paper must have been presented by the young researcher in either an oral or a poster session.

Procedure:

1. A small Awards Committee will be established before each COMPUMAG conference consisting of a chairman appointed by the ICS Board (must be a member of the ICS Board), the Chair (or one of the Co-chairs) of the COMPUMAG Editorial Board (or a person nominated by the Chair of the Editorial Board), a representative of the Local Organising Committee and two other members (could be, but do not have to be, ICS Board members) nominated by the ICS Board.
2. The Local Organising Committee of the COMPUMAG conference will prepare a list of eligible papers and will make this list available to the Awards Committee ahead of the conference. The scores of the referees will be shown on that list.
3. The chair of each conference session will be asked to nominate up to one (in exceptional circumstances two) authors for the award. A special form will be used for that purpose showing which papers are eligible. Such a form, showing all eligible papers in the session, will be prepared by the Conference Organisers. The session chair will be under no obligation to make a nomination.
4. The Awards Committee will meet briefly each day after the sessions to select the candidate papers from that particular day, taking account of the session chairs' nominations, reviewers' scores and their own observations during the day.
5. The Awards Committee will meet immediately after the final eligible paper has been presented on the last day and will make the decision. Up to 6 papers will be selected as to be 'commended' and authors will be issued certificates on behalf of the ICS Board. One of these authors (in exceptional circumstances two for a joint award) will be identified as the recipient(s) of the prize to a young researcher in memory of Rita Trowbridge.
6. The main prize(s) and the other commended papers will be announced at the closing session of COMPUMAG.

This page is left blank deliberately.

COMPUMAG2011 PROGRAM OUTLINE

Time	Monday 11 July 2011	Tuesday 12 July 2011	Wednesday 13 July 2011	Thursday 14 July 2011	Friday 15 July 2011
9:00		Opening Ceremony	Oral Session (OB1) 2 orals	Oral Session (OC1) 2 orals	Oral Session (OD1) 2 orals
9:30		Oral Session (OA1) – 1 oral			
10:00		Poster Sessions (PA1-3)	Poster Sessions (PB1-3)	Poster Sessions (PC1-3)	Poster Sessions (PD1-3)
11:00		Morning Tea			
11:30		Poster Sessions (PA4-6)	Poster Session (PB4-6)	Poster Session (PC4-6)	Poster Session (PD4-6)
12:30		Lunch			
13:30		Oral Session (OA2) 2 orals	Oral Session (OB2) 2 orals	Oral Session (OC2) 2 orals	Oral Session (TEAM) (OD2) 2 orals
14:30		Poster Sessions (PA7-9)	Poster Sessions (PB7-9)	Poster Sessions (PC7-9)	Poster Sessions (PD7-9)
15:30		Afternoon Tea			
16:00 – 17:00		Poster Session (PA10-12)	Poster Session (PB10-12)	Poster Session (PC10-12)	
18:30 – 20:30	Welcome Reception			Conference Dinner	

SESSION CHAIRS

Session ID	Session Chair	Affiliation	Session Chair	Affiliation
OA1	Mohammed, Osama	Florida International University, USA	Kost, Arnulf	TU Berlin, Germany
OA2	Bastos, João Pedro Assumpção	GRUCAD/UFSC, Brazil	Biro, O.	Graz University of Technology, Austria
OB1	Igarashi, H.	Hokkaido University, Japan	Pavo, Jozsef	Budapest University of Technology and Economics, Hungary
OB2	Xie, Dexin	Shenyang University of Technology, China	Koh, C.S.	Chungbuk National University, Korea
OC1	Lowther, David	McGill University, Canada		
OC2	Sykulski, Jan	University of Southampton, UK		
OD1	Hameyer, Kay	RWTH Aachen University, Germany	Russenschuck, Stephan	CERN, Switzerland
OD2	Alotto, Piergiorgio	Università di Padova, Italy	Dular, Patrick	University of Liege, Belgium
PA1	De Gersem, Herbert	Katholieke Universiteit Leuven, Belgium	Clemens, Markus	Bergische Universitaet Wuppertal, Germany
PA2	Perrussel, Ronan	CNRS, France		
PA3	Phyu, Hla Nu	Data Storage Institute, Singapore		
PA4	Fu, Weinong	The Hong Kong Polytechnic University, China		
PA5	Gyimothy, Szabolcs	Budapest University of Technology and Economics, Hungary		
PA6	Antonopoulos, Christos	Aristotle University of Thessaloniki, Greece		
PA7	Wang, Youhua	Hebei University of Technology, China		
PA8	Zheng, Ping	Harbin Institute of Technology, China	Ferreira da Luz, Mauricio Valencia	Federal University of Santa Catarina, Brazil
PA9	Takahashi, Yasuhito	Doshisha University, Japan	Meunier, Gerard	G2Elab, France

PA10	Mazauric, Vincent	Schneider Electric, France		
PA11	Gyselinck, Johan	Université Libre de Bruxelles (ULB), Belgium		
PA12	Nafalski, Andrew	University of South Australia, Australia		
PB1	Chen, Zhenmao	Xi'an Jiaotong University, People Republic of China	Dughiero, Fabrizio	University of Padova, Italy
PB2	Jung, H.K.	Seoul National University, Korea		
PB3	Ioan, Daniel	Politehnica University of Bucharest, Romania	Byun, Jin-Kyu	Soongsil University, Korea
PB4	Wang, Shuhong	Xi'an Jiaotong University, China		
PB5	Freschi, Fabio	Politecnico di Torino, Italy		
PB6	Mohammed, Osama	Florida International University, USA	Li, Lin	North China Electric Power University, China
PB7	Kim, Hyeong-Seok	Chung-Ang University, Korea		
PB8	Salon, Sheppard	RPI, USA	Lu, Junwei	Griffith University, Australia
PB9	Yang, Shiyu	Zhejiang University, China	Trevisan, Francesco	Universita' di Udine, Italy
PB10	Lebensztajn, Luiz	Escola Politécnica da Universidade de São Paulo, Brazil		
PB11	Geuzaine, Christophe	Université de Liège, Belgium	Feliziani, Mauro	University of L'Aquila, Italy
PB12	Rekanos, Ioannis T.	Aristotle University of Thessaloniki, Greece		
PC1	Watanabe, Kota	Hokkaido University, Japan		
PC2	Gotoh, Yuji	Oita University, Japan		
PC3	Noguchi, So	Hokkaido University, Japan		
PC4	Zhou, Ping	ANSYS, USA		
PC5	Sheng, Xin-Qing	Beijing Institute of Technology, China		

PC6	Muramatsu, Kazuhiro	Saga University, Japan		
PC7	Martone, Raffaele	Seconda Università di Napoli, Italy		
PC8	Trlep, Mladen	University of Maribor, Slovenia	Schlensock, Christoph	Bosch Rexroth Industrial Applications, Germany
PC9	Ren, Zhuoxiang	University of Pierre & Marie Curie, France	Nicolas, Laurent	Ampere lab, France
PC10	Xia, Dong	Chinese Academy of Sciences, China	Schmidt, Erich	Vienna University of Technology, Austria
PC11	Ho, Siu Lau	Hong Kong Polytechnic University, China		
PC12	Wakao, Shinji	Waseda University, Japan	Choi, Charles T. M.	National Chiao Tung University, ROC
PD1	Cheng, Zhiguang	Baoding Tianwei Group Co., Ltd, China	Sabariego, Ruth V.	University of Liège, Belgium
PD2	Piriou, Francis	University Lille 1, France		
PD3	Ni, Guangzheng	Zhejiang University, China	Yatchev, Ivan	Technical University of Sofia, Bulgaria
PD4	Todaka, Takashi	Oita University, Japan	Mastuo, Tetsuji	Kyoto University, Japan
PD5	Nabeta, Silvio	Escola Politécnica USP, Brazil		
PD6	Arjona Lopez, Marco A	Instituto Tecnológico de la Laguna, Mexico		
PD7	Sadowski, Nelson	GRUCAD/UFSC, Brazil	Kawase, Yoshihiro	Gifu University, Japan
PD8	Sartori, Carlos	Escola Politécnica da Universidade de São Paulo, Brazil		
PD9	Delinchant, Benoit	CNRS, France	Martone, Raffaele	Seconda Università di Napoli, Italy

SESSIONS

Opening Ceremony	1
Session OA1: Education	1
Session PA1: Numerical Techniques (I) and Education	1
Session PA2: Static Fields and Quasi-Static Fields (I)	3
Session PA3: Electric Machines and Drives (I)	5
Session PA4: Devices and Applications (I)	7
Session PA5: Numerical Techniques (II)	8
Session PA6: Static Fields and Quasi-Static Fields (II)	10
Session OA2: Numerical Techniques (I)	12
Session PA7: Devices and Applications (II)	12
Session PA8: Electric Machines and Drives (II)	14
Session PA9: Numerical Techniques (III)	16
Session PA10: Static Fields and Quasi-Static Fields (III)	18
Session PA11: Electric Machines and Drives (III)	19
Session PA12: Devices and Applications (III)	21
Session OB1: Wave Propagation and EMC	24
Session PB1: Optimization (I)	24
Session PB2: Electric Machines and Drives (IV)	26
Session PB3: Wave Propagation and EMC (I)	27
Session PB4: Devices and Applications (IV)	29
Session PB5: Optimization (II)	31
Session PB6: Electric Machines and Drives (V)	33
Session OB2: Devices and Applications	34
Session PB7: Wave Propagation and EMC (II)	35
Session PB8: Devices and Applications (V) and Benchmarking (TEAM)	37
Session PB9: Optimization (III)	38
Session PB10: Electric Machines and Drives (VI)	40
Session PB11: Wave Propagation and EMC (III)	42
Session PB12: Nanomagnetism and Applications and Photonics/Optoelectronics	44
Session OC1: Material Modelling	46
Session PC1: Numerical Techniques (IV)	46
Session PC2: Electrical Machines and Drives (VII)	48
Session PC3: Static Fields and Quasi-Static Fields (IV)	50
Session PC4: Coupled Problems (I)	52
Session PC5: Numerical Techniques (V)	53
Session PC6: Electric Machines and Drives (VIII)	55
Session OC2: Numerical Techniques II	57
Session PC7: Static Fields and Quasi-Static Fields (V)	58
Session PC8: Coupled Problems (II)	59
Session PC9: Numerical Techniques (VI)	61
Session PC10: Electric Machines and Drives (IX)	63
Session PC11: Static Fields and Quasi-Static Fields (VI)	65
Session PC12: Coupled Problems (III)	66
Session OD1: Optimization	69
Session PD1: Material Modelling (I)	69
Session PD2: Software Methodology	71
Session PD3: Optimization (IV)	73
Session PD4: Material Modelling (II)	75
Session PD5: Electric Machines and Drives (X)	76
Session PD6: Optimization (V)	78

Session OD2: Static Fields and Quasi-Static Fields80

Session PD7: Material Modelling (III)81

Session PD8: EMC.....82

Session PD9: Optimization (VI)84

TECHNICAL PROGRAM

Tuesday 12 July 2011

Opening Ceremony

09:00-09:25 Bayside Auditorium A
Welcome from Prof. Jianguo Zhu,
Prof. Arnulf Kost

Session OA1: Education

09:30-10:00 Bayside Auditorium A

OA1.1 (ID 596)

Establishing a Web Based Archive of Papers in Computational Electromagnetics
Trowbridge, Charles William (1); Sykulski, Jan K (2)
1: ICS, United Kingdom; 2: University of Southampton, United Kingdom

Session PA1: Numerical Techniques (I) and Education

10:00-11:00 – Bayside Gallery

PA1.1 (ID 127)

A Preconditioner Construction for Large Scale 3D Magnetostatic Problems
Kanayama, Hiroshi (1); Ogino, Masao (1); Sugimoto, Shin-ichiro (2); Enami, Kakeru (1); Komalasari, Endah (1)
1: Kyushu University, Japan; 2: The University of Tokyo, Japan

PA1.2 (ID 129)

Domain Decomposition and Its Applications in Time-Stepped Nonlinear Finite Element Analysis
Lin, Dingsheng; Zhou, Ping; He, Bo; Lambert, Nancy
Ansys Inc., United States of America

PA1.3 (ID 136)

Application of Non-Overlapping Mortar Finite Element Method in Eddy Current Problem Involving Movement
Shoubao, Liu
Wuhan University, China, Peoples Republic of

PA1.4 (ID 151)

Comparison of Multiscale Methods for the Analysis of Fine Periodic Electromagnetic Structures
Bottauscio, Oriano; Manzin, Alessandra
Istituto Nazionale di Ricerca Metrologica, Italy

PA1.5 (ID 167)

An Integrated Scheme for Machine Hysteresis Loss Evaluations based on Iterative Magnetic Equivalent Circuits and Emulated Epstein Frame Tests
Liu, Cheng-Tsung (1); Lin, Hsiu-Ying (1); Hwang, Chang-Chou (2)

1: National Sun Yat-Sen University, Taiwan, Republic of China; 2: Feng Chia University, Taiwan, Republic of China

PA1.6 (ID 169)

Optimal Design of a Permanent Magnet Linear Synchronous Motor with Low Cogging Force
Hwang, Chang-Chou (1); Li, Ping-Lun (2); Liu, Cheng-Tsung (3)

1: Department of Electrical Engineering, Feng Chia University, Taiwan, Republic of China; 2: Ph.D. Program in Electrical and Communications Engineering, Feng Chia University, Taiwan, Republic of China; 3: Department of Electrical Engineering, National Sun Yat-sen University, Taiwan, Republic of China

PA1.8 (ID 195)

Application of Local Point Interpolation Method to Electromagnetic Problems with Material Discontinuities using a New Visibility Criterion

Lima, Naïsses Zoia (1); Fonseca, Alexandre Ramos (2); Mesquita, Renato Cardoso (1)

1: Universidade Federal de Minas Gerais, Brazil; 2: Universidade Federal dos Vales do Jequitinhonha e Mucuri

PA1.9 (ID 205)

Non-Conforming Sliding Interfaces in 3D Finite Element Analysis of Electrical Machines with Motion

Lange, Enno; Henrotte, François; Hameyer, Kay

Institute of Electrical Machines, RWTH Aachen University

PA1.10 (ID 214)

Fundamental Characteristics of 2D Equivalent B-H Method

Fujisaki, Keisuke (1,2)

1: Nippon Steel Corporation, Japan; 2: Toyota Technological Institute, Japan

PA1.11 (ID 225)

Efficient Stochastic FDTD Method for EM Simulation

Shen, Jianxiang; Gao, Cong; Chen, Ji

University of Houston, United States of America

PA1.12 (ID 235)

Numerical Evaluation of Field Profile in an Undulator with Bulk HTS

Tsuchimoto, Masanori

Hokkaido Institute of Technology, Japan

PA1.13 (ID 258)

A Local Discontinuous Galerkin Method for Numerical Computation of Waveguide Eigenvalue Problems in Polar Coordinates

Ho, S. L.; Zhao, Yanpu; Fu, W. N.

The Hong Kong Polytechnic University, China, Peoples Republic of

PA1.14 (ID 261)

Parallel Computing of 3-D Eddy Current Analysis with A-phi Method for Rotating Machines

Nakano, Tomohito (1); Kawase, Yoshihiro (1); Yamaguchi, Tadashi (1); Nakamura, Masanori (2)

1: Gifu University, Japan; 2: Toyo Denki Seizo K.K., Japan

PA1.15 (ID 266)

A Circuit Parameter Extraction Algorithm of Eddy-Current Magnetic Field Based on Circuit-Field Coupling Method

Niu, Shuangxia (1); Ho, S. L. (1); Li, H. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: The Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

PA1.16 (ID 272)

High Performance Computation and Interactive Visualization of Electromagnetics for Engineering Education Program

Lu, Junwei

Griffith University, Australia

PA1.17 (ID 532)

Real-time Visualization System of Magnetic Field Utilizing Augmented Reality Technology for Education

Matsutomo, Shinya (1); Miyauchi, Takenori (1); Noguchi, So (2); Yamashita, Hideo (3)

1: Niihama National College of Technology, Japan; 2: Graduate School of Information Science and Technology, Hokkaido Univ., Japan; 3: Graduate School of Engineering, Hiroshima Institute of Technology, Japan

Session PA2: Static Fields and Quasi-Static Fields (I)

10:00-11:00 – Bayside Gallery

PA2.1 (ID 111)

Solving Transient Eddy Current Problems with Radial Basis Function Method in Frequency Domain

Zhang, Huaiqing; Fu, Zhihong; Wang, Quandi

Chongqing University, China, Peoples Republic of

PA2.2 (ID 117)

A Gauge Transformation of Electromagnetic Potentials for Decomposition of Harmonic Fields

Yamazaki, Katsumi; Kuramochi, Satoshi

Chiba Institute of Technology, Japan

PA2.3 (ID 124)

Finite Element Processing Methods to Peripheral Flux Leakage in Axial Field Flux-Switching PM Machines

Lin, Mingyao (1); Zhang, Lei (2); Zhao, Xuming (1); Li, Xin (1); Zhu, Z.Q. (3)

1: Southeast University, Nanjing, People's Republic of China; 2: State grid electric power research institute, Nanjing, P.R. China; 3: University of Sheffield, Sheffield S1 3JD, U.K.

PA2.4 (ID 139)

Behaviour of Gradient Coils for MRI Designed with Minimised Maximum Current Density

Poole, Michael Stephen (1); Sanchez Lopez, Hector (1); Crozier, Stuart (1); While, Peter (2);

Forbes, Larry (2)

1: University of Queensland, Australia; 2: University of Tasmania, Australia

PA2.5 (ID 140)

Fast Eddy Current Simulation in Thick Split Cylinders of Finite Length Induced by Coils of Arbitrary Geometry

Sanchez-Lopez, Hector; Poole, Michael; Crozier, Stuart
The University of Queensland, Australia

PA2.6 (ID 142)

Dispersive FDTD Modeling of In-Situ Electric Fields in Adults and Children Due to Conductor Contact of Charged Human

Hirata, Akimasa; Koyama, Teruyoshi; Fujiwara, Osamu
Nagoya Institute of Technology, Japan

PA2.7 (ID 146)

Comparison of Analytical Models for the Analysis and Design of Series Double Excitation Synchronous Machines

Tiegna, Huguette; Amara, Yacine; Barakat, Georges
GREAH (University of Le Havre), France

PA2.8 (ID 150)

Magnetic Field of Helical Conductors with Finite Length

Machczynski, Wojciech (1); Budnik, Krzysztof (1); Haubrich, Hans-Jurgen (2)
1: Poznan University of Technology, Poland; 2: RWTH Aachen, Germany

PA2.9 (ID 155)

Fast Computation Method for Solving the Power Frequency Electric Field in Substation

Zhang, Zhanlong (1); Zhu, Zhenhai (2); Xiao, Dongping (3)
1: Chongqing University, China, Peoples Republic of; 2: Chongqing University, China, Peoples Republic of; 3: Chongqing University, China, Peoples Republic of

PA2.10 (ID 164)

FDTD Derivation of Effective Resistance for Grounded Humans

Yanase, Kazuya; Hirata, Akimasa
Nagoya Institute of Technology, Japan

PA2.12 (ID 171)

Thickness and Conductivity Analysis of Molybdenum Thin Film in CIGS Solar Cells Using a Resonant Electromagnetic Testing Method

Pan, Yen-Lin; Tai, Cheng-Chi
National Cheng Kung University, Taiwan, Republic of China

PA2.13 (ID 179)

Multi-Weight-Function Indirect Boundary Element Method for Designing Shielding Cover for HVDC Converter System

Liu, Shili
North China Electric Power University, China, Peoples Republic of

PA2.14 (ID 183)

Appearance of Spotted Design by Magnetic Anisotropy Numerical Calculation

Fujisaki, Keisuke (1,2)
1: Nippon Steel Corporation, Japan; 2: Toyota Technological institute, Japan

PA2.15 (ID 184)

Modelling a Superconducting Current Limiter using a Modified Broyden's Method

Oleksiejuk, Boguslaw (1); Nafalski, Andrew (2)
1: Lublin University of Technology, Poland; 2: University of South Australia, Australia

Session PA3: Electric Machines and Drives (I)

10:00-11:00 – Baysie Gallery

PA3.1 (ID 108)

Examination of Non-contacting Measurement Method of Generation Current inside Polymer Electrolyte Fuel Cell using Heuristic Search

Gotoh, Yuji (1); Tanaka, Takayuki (1); Takahashi, Norio (2)

1: Oita University, Japan; 2: Okayama University

PA3.2 (ID 113)

Evaluation of a Simple Lamination Stacking Method for the Teeth of an Axial Flux Permanent-Magnet Synchronous Machine with Concentrated Stator Windings

Vansompel, Hendrik (1); Sergeant, Peter (1,2); Dupré, Luc (1); Van den Bossche, Alex (1)

1: Department of Electrical Energy, Systems & Automation, Ghent University; 2: Department of Electrotechnology, Faculty of Applied Engineering Sciences, University College Ghent

PA3.3 (ID 115)

Characteristics Analysis of Large High Speed Induction Motors Using 3-D Finite Element Method

Yamazaki, Katsumi (1); Kuramochi, Satoshi (1); Fukushima, Noriaki (2); Yamada, Shinichiro (2);

Tada, Shin (2)

1: Chiba Institute of Technology, Japan; 2: Toshiba Mitsubishi-Electric Industrial Systems Corporation

PA3.4 (ID 125)

Analysis of VR Stepper Motor Dynamics Considering 3D FE Model with Core Lamination and Effect of Minimum Energy Control on Steel Loss

Stępień, Sławomir Jan; Bernat, Jakub

Poznan University of Technology, Poland

PA3.5 (ID 130)

Analytical Prediction of Cogging Torque for Spoke Type Permanent Magnet Machines

Lin, Dingsheng; Zhou, Ping

Ansys Inc., United States of America

PA3.6 (ID 134)

Performances Computation for a Dual-Channel Switched Reluctance Generator Operation under Single- and Dual-Channel Modes

Ding, Wen

Xi'an jiaotong University, China, Peoples Republic of

PA3.7 (ID 137)

Induction Coil Gun Field-Circuit Analysis Based on Current Filament Method and Non-Overlapping Mortar Finite Element Method

Shoubao, Liu

Wuhan University, China, Peoples Republic of

PA3.8 (ID 143)

Eddy-Current Loss Modeling for Induction Motor with a Form-Wound Stator Winding

Huynh, Van Khang; Arkkio, Antero

Aalto University, Finland

PA3.9 (ID 144)

Magnetic Equivalent Circuit for Saturation Modeling of a Deep-bar Induction Motor
Huynh, Van Khang; Hellman, Hannu-Pekka; Arkkio, Antero
Aalto University, Finland

PA3.10 (ID 149)

Core Loss Modeling for Permanent Magnet Motor Based on Flux Variation Locus and Finite Element Method
Huang, Yunkai (1); Dong, Jianning (1); Lin, Heyun (1); Guo, Youguang (2); Zhu, Jianguo (2)
1: School of Electrical Engineering, Southeast University, Nanjing, China; 2: School of Electrical, Mechanical and Mechatronic Systems, University of Technology Sydney, Australia

PA3.11 (ID 156)

Magnetic Field in a Transverse- and Axial-flux Permanent-Magnet Synchronous Generator from 3-D FEA
Chan, Tze-Fun (1); Wang, Weimin (1); Lai, Loi Lei (2)
1: The Hong Kong Polytechnic University, China, Peoples Republic of; 2: City University London, UK

PA3.12 (ID 158)

Mechanical Stress Reduction of Rotor Core of Interior Permanent Magnet Synchronous Motor
Jung, Jae-Woo (1); Hong, Jung-Pyo (1); Jeon, Seong-Min (2)
1: Hanyang University, Korea, South (Republic of); 2: S&T Daewoo, Korea, South (Republic of)

PA3.13 (ID 159)

Modeling of Switched Reluctance Motor for Inter-Turn Winding Short-Circuit Fault
Chen, Hao (1); Lu, Shengli (1); Chen, Zhe (2)
1: China University of Mining & Technology, China, Peoples Republic of; 2: Institute of Energy Technology, Aalborg University, Aalborg 9220, Denmark

PA3.14 (ID 165)

A Dynamic Cosimulation Approach for a Switched Reluctance Starter/Generator Using Maxwell SPICE and Simpler
Ding, Wen
Xi'an jiaotong University, China, Peoples Republic of

PA3.15 (ID 173)

The Analysis of a Novel Transverse-flux Linear Oscillating Actuator
Lu, Qinfen; Yu, Minghu; Ye, Yunyue; Fang, Youtong
Zhejiang University, China, Peoples Republic of

PA3.16 (ID 222)

Conductive EMI Noise Analysis for Switched Reluctance Motor Drive
Chen, Hao; Zhao, Y; Qiu, X
China University of Mining & Technology, China, Peoples Republic of

PA3.17 (ID 175)

Analytical Calculation of Flux-Linkage Characteristics of Switched Reluctance Linear Generator
Chen, Hao; Lu, S; Zhou, X; Sun, C
China University of Mining & Technology, China, Peoples Republic of

Session PA4: Devices and Applications (I)

11:30-12:30 – Bayside Gallery

PA4.1 (ID 110)

The Torque and Damping Characteristics Analysis of the Non-contact Permanent Magnet Driving Device for Artificial Heart

Xia, Dong

Chinese Academy of Sciences, China, Peoples Republic of

PA4.2 (ID 119)

An internal Quad-band Printed Monopole Antenna for Oval-Shaped Mobile Phones

Zhao, Anping

Nokia Research Center, China, Peoples Republic of

PA4.3 (ID 123)

Transmission Torque Analysis of a Novel Magnetic Planetary Gear Employing 3-D FEM

Niguchi, Noboru; Hirata, Katsuhiko

Osaka University, Japan

PA4.4 (ID 188)

Modeling and Design of Permanent Magnet Vibration-to-Electrical Power Generator's Induction Coil

Wang, Zhihua; Wang, Bowen; Zhang, Na; Wang, Li; Yan, Weili; Wang, Youhua

Hebei University of Technology, China, Peoples Republic of

PA4.5 (ID 203)

First Approach for the Modelling of the Electrical Field surrounding a Piezoelectric Transformer in view of Plasma Generation

Nadal, Clement; Pigache, Francois; Lefevre, Yvan

Université de Toulouse, CNRS, France

PA4.6 (ID 212)

A New Inductor for Transverse Flux Induction Heating

Wang, Youhua; Yang, Xiaoguang; Pang, Lingling

Hebei University of Technology, China, Peoples Republic of

PA4.7 (ID 218)

Design and Analysis of Multi-Coils Induction Cooker for Thermal Performance Improvement

Meng, Lichan; Cheng, Ka Wai Eric; Ho, Siu Lau; Fu, Wei Nong

The Hong Kong Polytechnic University, China, Peoples Republic of

PA4.8 (ID 223)

Core Tester Iron Losses Segregation by Finite Element Modeling

Sadowski, Nelson (1); Schlegel, Jean Paul (1); Batistela, Nelson Jhoe (1); Iamamura, Bruno (1);

Bastos, João Pedro (1); Espindola, Aleandro Amauri (2)

1: GRUCAD/UFSC, Brazil; 2: EMBRACO-WHIRPOOL, Brazil

PA4.9 (ID 229)

Investigation of a Novel Integrated Magnetic System using Finite Element Method in Comparison to Conventional Integrated Magnetic Devices

Stegen, Sascha; Lu, Junwei

Griffith University, Australia

PA4.10 (ID 232)

Analysis of Temperature Distribution in Power Converter for Switched Reluctance Motor Drive

Chen, Hao; Xu, Y; Huang, F

China University of Mining & Technology, China, Peoples Republic of

PA4.11 (ID 262)

A Parameters Optimization Method of High Frequency Transformers Used in the On-Board Charging System of Electric Vehicle

Water, Wayne; Lu, Junwei

Griffith University, Australia

PA4.12 (ID 271)

Examination of Eddy Current in Laminated Core without Insulation

Takahashi, Norio (1); Akagi, Akira (1); Miyagi, Daisuke (1); Nakano, Masanori (1); Doi, Yuhito (2)

1: Okayama University, Japan; 2: Shin-Etsu Chemical Co.,Ltd,

PA4.13 (ID 278)

Research on Simulation and Experiment of the Electromagnetically Induced Acoustic Emission Based on High-Current Loading

Zhang, Chuang; Liu, Suzhen; Yang, Qingxin; Jin, Liang; Wang, Youhua; Xu, Guizhi

Hebei University of Technology, China, Peoples Republic of

PA4.14 (ID 309)

An In-wheel Axial-flux-modulated Machine for Hybrid Electric Vehicles

Ho, S. L. (1); Niu, Shuangxia (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA4.15 (ID 330)

Power Frequency Electromagnetic Environment for Studying Bio-effects

Geng, Duyan (1); Yang, Xuewen (2); Xu, Guizhi (1); Wang, Youhua (1); Yan, Weili (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong

Session PA5: Numerical Techniques (II)

11:30-12:30 – Bayside Gallery

PA5.1 (ID 267)

Calculation of Single Conductor Capacitance by Solving the Electrostatic Field

Chen, Yong; Xiang, Hongjun; Yuan, Jiansheng

Tsinghua University, China, Peoples Republic of

PA5.2 (ID 276)

Precise Magnetic Field Modeling Techniques of Rotation Problems Using Transient Finite-Element Method

Ho, S. L. (1); Li, H. L. (1); Niu, Shuangxia (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: The Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA5.3 (ID 277)

A Mesh-insensitive Methodology for Magnetic Force Computation in Finite-element Analysis

Ho, S. L. (1); Niu, Shuangxia (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA5.4 (ID 319)

A Concave FE-BI-MLFMA for Scattering by a Large Body with Nonuniform Deep Cavities

Sheng, Xin-Qing; Yang, Ming-Lin; Pan, Xiao-Min; Pi, Wei-Chao

Beijing Institute of Technology, China, Peoples Republic of

PA5.5 (ID 320)

Hybrid h- and p-Type Multiplicative Schwarz (h-p-MUS) Preconditioned Algorithm of Higher-Order FE-BI-MLFMA for 3D Scattering

Sheng, Xin-Qing; Yang, Ming-Lin

Beijing Institute of Technology, China, Peoples Republic of

PA5.6 (ID 341)

Efficient Iterative Integral Technique for Computation of Fields in Electric Machines with Rotor Eccentricity

Ciric, Ioan R. (1); Hantila, Florea I. (2); Maricaru, Mihai (2); Marinescu, Stelian (3)

1: The University of Manitoba, Canada; 2: Politehnica University of Bucharest, Romania; 3: Research Institute for Electrical Engineering, Romania

PA5.7 (ID 346)

Analysis of Ion Flow Field of UHV/EHV AC Transmission Lines

Yin, Han; Zhang, Bo; He, Jinliang; Zeng, Rong; Li, Wei

Tsinghua University, China, Peoples Republic of

PA5.8 (ID 356)

An Efficient FEM and FVM Coupled Algorithm for Eddy Current Analysis in Electromagnetic Devices with High-Speed Moving Conductors

Ho, S. L. (1); Chen, Ningning (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: The HK Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA5.9 (ID 364)

Frequency Response Analysis Considering Non-linearity of Complex Magnetic Permeability employing 3-D FEM

Yang, SeungHo (1); Hirata, Katsuhiko (1); Ota, Tomohiro (2); Kawase, Yoshihiro (3)

1: Osaka University, Japan; 2: Panasonic Electric Works, Ltd., Japan; 3: Gifu University, Japan

PA5.10 (ID 365)

Finding a Crack Position in a Material on the Basis of Non-Destructive Testing with Eddy Currents

Jesenik, Marko; Goričan, Viktor; Hamler, Anton; Trlep, Mladen

Faculty of Electrical Engineering and Computer Science, Slovenia

PA5.11 (ID 387)

Application of Multi-stage Diagonally-implicit Runge-Kutta Algorithm to Transient Magnetic Field Computation Using Finite Element Method

Li, H. L.; Ho, S. L.; Fu, Weinong
The Hong Kong Polytechnic University, Hong Kong S.A.R. - China

PA5.12 (ID 392)

Development of a Very Fast Simulator for Pulsed Eddy Current Testing Signals

Xie, Shejuan (1); Chen, Zhenmao (2); Takagi, Toshiyuki (1); Uchimoto, Tetsuya (1)

1: Institute of Fluid Science, Tohoku University, Katahira 2-1-1, Aoba-ku, Sendai 980-8577, Japan;

2: MOE Key Laboratory for Strength and Vibration, Xi'an Jiaotong University, Xi'an, 710049, China

PA5.13 (ID 403)

Speed-up of Nonlinear Electromagnetic Field Analysis using Fixed-Point Method

Takahashi, Norio (1); Shimomura, Kosuke (1); Miyagi, Daisuke (1); Kaimori, Horoyuki (2)

1: Okayama University, Japan; 2: Science Solutions International Laboratory, Inc., Japan

PA5.14 (ID 408)

A Novel Electrical Impedance Tomography System using Rectangular Electrodes Array

He, Wei; Li, Bing; Xu, Zheng; Yang, Fan; Ju, Kang; Luo, Haijun

State Key Laboratory of Power Transmission Equipment & System Security and New Technology, Chongqing University, Chongqing 400030, China

PA5.15 (ID 427)

Computing Eddy Currents in Permanent Magnet Synchronous Machines by a 3D Finite Element Model without Motion

Mohr, Martin; Bíró, Oszkár; Stermecki, Andrej

Institute for Fundamentals and Theory in Electrical Engineering, Graz University of Technology, Austria

Session PA6: Static Fields and Quasi-Static Fields (II)

11:30-12:30 – Bayside Gallery

PA6.1 (ID 192)

Magnetic Field Mitigation Shielding of Underground Power Cables

Machado, Vitor Maló

Center for Innovation in Electrical and Energy Engineering, Portugal

PA6.2 (ID 207)

Numerical Simulation of Shielding Current Density in High-Temperature Superconducting Film: Influence of Film Edge on Permanent Magnet Method

Kamitani, Atsushi; Takayama, Teruou

Yamagata University, Japan

PA6.3 (ID 211)

Multi-dimensional Support Vector Regression in Electrical Capacitance Tomography

Yang, Xiaoguang; Li, Jianwei; Wang, Youhua

Hebei University of Technology, China, Peoples Republic of

PA6.4 (ID 215)

Study of Numerical Method for Magnetic Shielding Problem

Takahashi, Norio (1); Ujigawa, Satoshi (2); Shinnoh, Toshifumi (2); Miyagi, Daisuke (1)

1: Okayama University, Japan; 2: Kajima Corp., Japan

PA6.5 (ID 226)

Magnetic Tracking inside Conducting Bores for Radiotherapy Tumor Localization Systems

Xiong, Zubiao (1); Feng, Shi (1); McGary, John (2); Chen, Ji (1)

1: University of Houston, United States of America; 2: Baylor College of Medicine, United States of America

PA6.6 (ID 230)

Vector Magnetic Characteristic Analysis of a Surface Permanent Magnet Motor by means of Complex E&S Modeling

Zeze, Shingo; Todaka, Takashi; Enokizono, Masato

Oita University, Japan

PA6.7 (ID 237)

New Laminated-Structure Flux Switching Permanent Magnet Machine for Plug-in Hybrid Electrical Vehicle with Novel Configuration

Xu, Wei; Zhu, Jianguo; Zhang, Yongchang; Guo, Youguang

University of Technology Sydney, Australia

PA6.8 (ID 241)

Novel Simplified Time-Periodic Explicit Error Correction Method for Steady-State Analysis of Magnetic Field Including Direct Current Component

Katagiri, Hirokatsu; Kawase, Yoshihiro; Yamaguchi, Tadashi

Gifu University, Japan

PA6.9 (ID 243)

Geometric Multigrid with Plane Smoothing for Thin Elements in 3-D Magnetostatic Field Calculation

Chen, Chao; Bíró, Oszkár

Graz University of Technology, Austria

PA6.10 (ID 249)

Characteristics Analysis of the Square Laminated Core under DC-biased Magnetization by the Fixed-point Harmonic-Balanced FEM

Zhao, Xiaojun (1); Li, Lin (1); Lu, Junwei (2); Cheng, Zhiguang (3); Lu, Tiebing (1)

1: North China Electric Power University, China, Peoples Republic of; 2: Griffith University, Australia; 3: R&D Center of Baoding Tianwei Group, China, Peoples Republic of

PA6.11 (ID 250)

Simulation and Measurement of Iron Loss and Flux inside Silicon Steel Lamination under DC Biasing

Zhao, Zhigang (1); Liu, Fugui (1); Wang Youhua (1); Cheng, Zhiguang (2); Yan, Weili (1)

1: Province-Ministry Joint Key Laboratory of Electromagnetic Field and Electrical Apparatus Reliability, Hebei University of Technology, China, Peoples Republic of; 2: R & D Center, Baoding Tianwei Group Co., LTD

PA6.12 (ID 259)

Dynamic Characteristics Analysis of Circuit Breaker with Oil Dashpot Employing Improved Multi-Mesh Modification Method

Toyama, Shuhei; Suzuki, Satoshi; Kawase, Yoshihiro; Yamaguchi, Tadashi; Hirata, Katuhiro; Ota, Tomohiro

Gifu University, Japan

PA6.13 (ID 263)

Reluctance Network Treatment of Skin and Proximity Effects in Multi-conductor Transmission Lines

Bormann, Dierk (1,2); Tavakoli, Hanif (1)

1: Royal Institute of Technology (KTH), Stockholm, Sweden; 2: ABB Corporate Research, Västerås, Sweden

PA6.14 (ID 287)

Comparison Study of Finite Element Methods Dealing with Floating Conductors in Electric Field

Fu, W. N. (1); Ho, S. L. (1); Niu, Shuangxia (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA6.15 (ID 288)

FEM-Source Integral Boundary Conditions for Computation of the Open-Boundary Electrostatic Fields

Shiqiong, Li; Zezhong, Wang

North China Electric Power University, China, Peoples Republic of

Session OA2: Numerical Techniques (I)

13:30-14:30 Bayside Auditorium A

OA2.1 (ID 472)

3D Magnetic Scalar Potential Finite Element Formulation for Conducting Shells Coupled with an External Circuit

Guerin, Christophe (1); Meunier, Gérard (2)

1: CEDRAT S.A., Meylan, France; 2: G2ELab, Saint-Martin-d'Hères, France

OA2.2 (ID 466)

Alternate Parallel Processing Approach for FEM

Fernández, David M.; Mehri Dehnavi, Maryam; Gross, Warren J.; Giannacopoulos, Dennis D. McGill University, Canada

Session PA7: Devices and Applications (II)

14:30-15:30 – Bayside Gallery

PA7.1 (ID 332)

Efficient Methodology for Optimizing Degaussing Coil Currents in Ships Utilizing Magnetomotive Force Sensitivity Information

Kim, Dong-Hun (1); Choi, Nak-Sun (1); Jeung, Giwoo (1); Yang, Chang-Seob (2); Chung, Hyun-Ju (2); Jung, Snag Sik (1)

1: Kyungpook National University, Korea, South (Republic of); 2: Agency for Defense Development, Korea, South (Republic of)

PA7.2 (ID 350)

Computation of 3D Magnetic Leakage Field and Stray Losses in Large Power Transformer

Zhu, Zhanxin; Xie, Dexin; Wang, Gang; Zhang, Yanli; Yan, Xiuke

Shenyang University of Technology, China, Peoples Republic of

PA7.3 (ID 353)

Characteristic Analysis of Directly Coupled HTS dc-SQUID Magnetometer Considering Josephson Junction as Equivalent Circuit

Terauchi, Naoya (1); Noguchi, So (1); Igarashi, Hajime (1); Hatsukade, Yoshimi (2)

1: Hokkaido University, Japan; 2: Toyohashi University of Technology, Japan

PA7.4 (ID 362)

Optimal Design for Synchronous Motor by using 3-D FEM with Embedded Parallel Genetic Algorithm

Kitagawa, Wataru; Kimura, Yoshihiro

Nagoya Institute of Technology, Japan

PA7.5 (ID 372)

Analysis of the Force Characteristic on the Armature of Inductive Coilgun and its Trigger Strategy

Xiang, Hongjun (1); Li, Zhiyuan (2); Yuan, Jiansheng (1)

1: Tsinghua University, China, Peoples Republic of; 2: Shijiazhuang Mechanical Engineering College

PA7.6 (ID 375)

Characteristics Analysis of a New Spherical Actuator Employing 3-D FEM

Maeda, Shuhei; Hirata, Katsuhiro

Osaka-University, Japan

PA7.7 (ID 381)

Modeling of PM Synchronous Machines Under Inter-turn Fault

Takorabet, Nouredine; Leboeuf, Nicolas; Boileau, Thierry; Meibody-Tabar, Farid

Nancy University INPL, France

PA7.8 (ID 385)

Simulation Analysis of Steady State Characteristics of a Novel Permanent Variable Transmission

Xing, Jingwei (1); Yin, Zhijun (2); Li, Yong (1)

1: Harbin Institute of Technology, China, Peoples Republic of; 2: Harbin Electric Machinery Company, China, Peoples Republic of

PA7.9 (ID 395)

Computational Investigation of SF6 Hot-Gas Flow around Current Zero in UHV Gas Circuit Breakers

Song, Ki-Dong (1); Oh, Yeon-Ho (1); Chong, J. K. (1); Lim, J. S. (2); Seo, W. B. (2)

1: KERI, Korea, South (Republic of); 2: Il-Jin Electric Co.

PA7.10 (ID 397)

Analysis on Electromagnetic Losses of High-Speed Permanent Magnet Synchronous Motor according to Current Waveform

Ko, Kyoung-Jin (1); Jang, Seok-Myeong (1); Lee, Sung-Ho (2)

1: Chungnam National University, Korea, South (Republic of); 2: Korea Institute of Industrial Technology Gwangju Research Center, Korea, South (Republic of)

PA7.11 (ID 399)

Comparison on Eddy Current Losses for Halbach Array Permanent Magnet Type Cylindrical Linear Oscillatory Actuator according to Voltage Source Waveform

Ko, Kyoung-Jin (1); Jang, Seok-Myeong (1); Jeong, Sang-Sub (2)

1: Chungnam National University, Korea, South (Republic of); 2: LG Electronics Incorporated, Korea, South (Republic of)

PA7.12 (ID 438)

Comparison and Improvement of Inverse Techniques for MEG Source Connectivity Network Reconstruction

Luan, Feng (1,2); Choi, Jong-Ho (1); Lee, Chany (3); Kim, Min-Hyuk (1); Jung, Hyun-Kyo (1)

1: School of Electrical Engineering and Computer Science, Seoul National University, Korea, South (Republic of); 2: School of Information Science and Engineering, Northeastern University, Shenyang, China; 3: College of Medicine, Korea University, Korea, South (Republic of)

PA7.13 (ID 440)

Precise Estimation of Correlated Bio-Electromagnetic Activities in Deep Source Space

Luan, Feng (1,2); Choi, Jong-Ho (1); Lee, Chany (3); Kim, Min-Hyuk (1); Jung, Hyun-Kyo (1)

1: School of Electrical Engineering and Computer Science, Seoul National University, Korea, South (Republic of); 2: School of Information Science and Engineering, Northeastern University, Shenyang, China; 3: College of Medicine, Korea University, Korea, South (Republic of)

PA7.15 (ID 489)

Influence of the Non-Linear UHF-RFID IC Impedance on the Backscatter Abilities of a T-Match Tag Antenna Design

Bauernfeind, Thomas (1); Koczka, Gergely (1); Maier, Stefan (2); Preis, Kurt (1); Biro, Oszkar (1)

1: Graz University of Technology, Austria; 2: NXP Semiconductors Austria GmbH, Austria

Session PA8: Electric Machines and Drives (II)

14:30-15:30 – Bayside Gallery

PA8.1 (ID 177)

Comparison of Synchronous Reluctance Machines with High-Anisotropy Rotors

Schmidt, Erich

Vienna University of Technology, Austria

PA8.2 (ID 185)

A Straightforward ICCG Convergence Method for Simulation of Multi-loop and FE Model of Electric Machines and Power Electronics Systems

Shanming, Wang (1); Yonghong, Xia (1,2); Xiangheng, Wang (1); Pengsheng, Su (1); Shaogang, Huang (2)

1: Tsinghua University, China, Peoples Republic of; 2: Nanchang University, China, Peoples Republic of

PA8.3 (ID 194)

A Novel Off-line Parameter Identification Method Based on IRCMF312 for PMSM

Wang, Wei; Zhang, Siyao

Harbin Institute of Technology, China, Peoples Republic of

PA8.4 (ID 196)

Iron Loss Prediction of a Fractional-Slot Concentrated Winding Surface PM Synchronous Generator Feeding Various Loads

Dong, Jianning; Huang, Yunkai; Jin, Long

School of Electrical Engineering, Southeast University, Nanjing, China

PA8.5 (ID 199)

Segmented Magnets in Line-start Permanent Magnet Synchronous Motor for Reducing Magnet Demagnetization

Lu, Weifu

North China Electric Power University, China, Peoples Republic of

PA8.6 (ID 217)

Inductance and Torque Calculation of Permanent Magnet Synchronous Machines using the Frozen Permeabilities Method with the Finite Element Analyses

Schmidt, Erich; Susic, Marko

Vienna University of Technology, Austria

PA8.7 (ID 227)

Analysis of a Magnetic Release in a Molded Case Circuit Breaker

Shin, Dong Kyu; Kang, Jong Sung; Choi, Myung Jun

Hyundai Heavy Industries Co., LTD., Korea, South (Republic of)

PA8.8 (ID 228)

End Effect in Tubular Transverse Flux Permanent Magnet Linear Motor

Zhao, Mei; Zou, Jibin; Li, Jianjun; Wang, Qian

Harbin Institute of Technology, China, Peoples Republic of

PA8.9 (ID 233)

Improvement of Torque Characteristic of Flux-Concentration-Type Surface Permanent Magnet Motors

Todaka, Takashi; Eguchi, Keisuke; Enokizono, Masato

Faculty of Engineering, Oita University, Japan

PA8.10 (ID 238)

Performance of an Axial-flux Permanent-magnet Synchronous Generator with Double-sided Rotor and Coreless Armature

Chan, Tze-Fun (1); Wang, Weimin (1); Lai, Loi Lei (2)

1: The Hong Kong Polytechnic University, China, Peoples Republic of; 2: City University London, UK

PA8.11 (ID 242)

Asymmetry of Windings Inductance in High- Torque Low-Speed Multi-Unit Permanent Magnet Synchronous Motor

Zhao, Bo; Zou, Jibin; Li, Jianjun

Harbin Institute of Technology, China, Peoples Republic of

PA8.12 (ID 255)

Analytic Design of Slotless Brushless DC Motor with Hexagonal Windings

Seo, Jung Moo (1,2); Kim, Young Kyun (1); Rhyu, Se Hyun (1); Jung, In Soung (1); Jung, Hyun Kyo (2)

1: Korea Electronics Technology Institute, Korea, South (Republic of); 2: Seoul National University, Korea, South (Republic of)

PA8.13 (ID 257)

Iron Loss of a Permanent Magnet-Inductor Hybrid Excitation Synchronous Generator

Zou, Jibin; Fu, Xinghe; Zhao, Bo

Harbin Institute of Technology, China, Peoples Republic of

PA8.14 (ID 274)

A Power Balanced Time-stepping Finite Element Method for Transient Magnetic Field Computation

Niu, Shuangxia (1); Ho, S. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: The Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA8.15 (ID 279)

Study on Control Strategy of a Linear Switched Reluctance Machine with Mutual Coupling in Wave Energy Conversion

Du, Jinhua; Liang, Deliang; Gao, Lin

State Key Laboratory of Electrical Insulation and Power Equipment, School of Electrical Engineering, Xi'an Jiaotong University, China, Peoples Republic of

Session PA9: Numerical Techniques (III)

14:30-15:30 – Bayside Gallery

PA9.1 (ID 429)

Steady-State Analysis of Power Transformers under DC Bias by the Finite Element Method with the Fixed Point Technique

Biro, O. (1); Chen, Y. (1); Koczka, G. (1); Leber, G. (2); Preis, K. (1); Wagner, B. (2)

1: Graz University of Technology, Austria; 2: Siemens Transformers Austria

PA9.2 (ID 444)

An Independent Loops Search Algorithm for Solving Inductive PEEC Large Problems

Nguyen, Trung-Son; Guichon, Jean-Michel; Chadebec, Olivier; Meunier, Gérard; Vincent, Benjamin

Grenoble Electrical Engineering Laboratory, France

PA9.3 (ID 459)

Electromagnetic Field Analysis on Inter-turn Short Circuit of Rotor Winding for Turbogenerator Based on Meshless Method

Chen, Xiaoming (1); Yang, Guangyuan (1); Shao, K. R. (1); Guo, Youguang (2); Zhu, Jianguo (2)

1: Huazhong University of Science and Technology, China, Peoples Republic of; 2: Faculty of Engineering, University of Technology, Sydney, N.S.W. 2007, Australia

PA9.4 (ID 461)

Iterative Solver for Linear System Obtained by Edge Element: Variable Preconditioned Method with Mixed Precision on GPU

Ikuno, Soichiro; Kawaguchi, Yuki; Fujita, Norihisa; Itoh, Taku; Nakata, Susumu; Watanabe, Kota
Tokyo University of Technology, Japan

PA9.6 (ID 471)

Transient Calculation of Electromagnetic Field for Grounding System based on Consideration of Displacement Current

Trlep, Mladen; Jesenik, Marko; Hamler, Anton

University of Maribor, Slovenia

PA9.8 (ID 474)

A Matrix-Free Iterative Solution Procedure for Finite Element Problems

Bastos, João Pedro Assumpção (1); Jacobs, Ralf (2); Sadowski, Nelson (1); Arnulf, Kost (3)
1: GRUCAD/UFSC, Brazil; 2: T.U. Dresden, Germany; 3: T.U. Cottbus, Germany

PA9.10 (ID 478)

Applying Parallel Programming to the N Scheme for Solving FEM Cases without Assembling an $Ax = b$ System

Eyng, Juliana (1); Bastos, João Pedro Assumpção (1); Sadowski, Nelson (1); Fischborn, Marcos (2); Dantas, Mario Antonio Ribeiro (1)

1: Universidade Federal de Santa Catarina, Brazil; 2: Universidade Tecnológica Federal do Paraná

PA9.11 (ID 480)

A Novel Approach for Time Domain Analysis of Transient Currents in Conductors

Tolosa, Thiago Grandi; Janiszewski, Jorge Mieczyslaw; Pouzada, Eduardo Victor
Mauá Institute of Technology, Brazil

PA9.12 (ID 491)

Accelerating Sparse Approximate Inverse Preconditioners based on Matrix Entries on GPUs

Mehri Dehnavi, Maryam; Fernández, David M.; Giannacopoulos, Dennis D.
McGill University, Canada

PA9.13 (ID 502)

Vector Fitting based Adaptive Frequency Sampling for Compact Model Extraction on HPC Systems

Ciuprina, Gabriela; Ioan, Daniel; Lazar, Ioan-Alexandru
Politehnica University of Bucharest, Romania

PA9.14 (ID 505)

Improved Generalized Back Projection Algorithm Based on Linearised Sensitivity Function for 3D EIT

Wang, Hongbin; Xu, Guizhi; Zhang, Shuai; Li, Ying; Yan, Weili
Hebei University of Technology, China, Peoples Republic of

PA9.15 (ID 507)

A Fixed-pointed Iteration Method of Total Variation Regularization for Image Reconstruction of ECT

Li, Cuihuan; Yang, Xiaoguang; Wang, Youhua
Province-Ministry Joint Key Laboratory of Electromagnetic Field and Electrical Apparatus Reliability, Hebei University of Technology, Box 359, Tianjin 300130, China

Session PA10: Static Fields and Quasi-Static Fields (III)

16:00-17:00 – Bayside Gallery

PA10.1 (ID 294)

FEM-Source Integral Boundary Conditions for Computation of the Open-Boundary Magnetostatic Fields

Zezhong, Wang; Shiqiong, Li

North China Electric Power University, China, Peoples Republic of

PA10.2 (ID 305)

Stochastic Uncertainty Quantification of Eddy Currents in the Human Body by Polynomial Chaos Decomposition

Gaignaire, Roman (1); Scorretti, Riccardo (2); Sabariego, Ruth (1); Geuzaine, Christophe (1)

1: Université de Liège, Belgium; 2: Laboratoire Ampère – UMR 5005 CNRS, Université Lyon 1, France

PA10.3 (ID 307)

Computation of Second Order Capacitance Sensitivities Using Adjoint Method in Finite Element Modeling

Ren, Zhuoxiang (1); Qu, Hui (2); Xu, Xiaoyu (2)

1: Laboratoire d'Electronique et Electromagnetisme, University of Pierre & Marie Curie, France; 2: Institute of Electrical Engineering, Chinese Academy of Sciences, China

PA10.4 (ID 308)

Plane Field Harmonics in Accelerator Magnets

Russenschuck, Stephan; Hoffmann, Sabina; Auchmann, Bernhard

CERN, Switzerland

PA10.5 (ID 315)

Quantitative Non-destructive Testing of Metallic Foam Based on Direct Current Potential Drop Method

Zhang, Jing (1); Xie, Shejuan (1,2); Chen, Zhenmao (1)

1: MOE Key Laboratory for Strength and Vibration, Xi'an Jiaotong University, Xi'an, 710049, China; 2: Institute of Fluid Science, Tohoku University, Katahira 2-1-1, Aoba-ku, Sendai, 980-8577, Japan

PA10.8 (ID 326)

High Efficiency FEM Calculation of the Ionized Field under HVDC Transmission Lines

Zhen, Yongzan; Cui, Xiang; Lu, Tiebing; Zhou, Xiangxian; Luo, Zhaonan

North China Electric Power University, China, Peoples Republic of

PA10.9 (ID 327)

Analysis of Ion Current Passing through the Human Body under HVDC Lines with 3D Finite Element Method

Zhen, Yongzan; Cui, Xiang; Lu, Tiebing; Zhou, Xiangxian; Luo, Zhaonan

North China Electric Power University, China, Peoples Republic of

PA10.10 (ID 359)

A Time-Efficient Method for the Simulation of Ion Flow Field of the AC-DC Hybrid Transmission lines

Zhou, Xiangxian; Cui, Xiang; Lu, Tiebing; Zhen, Yongzan; Luo, Zhaonan

North China Electric Power University, China, Peoples Republic of

PA10.11 (ID 363)

2D/3D Hybrid Calculation of Ion Flow Field near House under HVDC Bipolar Transmission Line

Zhang, Bo; Yin, Han; He, Jinliang; Zeng, Rong; Li, Wei

Tsinghua University, China, Peoples Republic of

PA10.12 (ID 367)

Recent Surrogate Modeling Approaches in Electromagnetic Nondestructive Evaluation

Bilicz, Sandor (1,2); Lambert, Marc (1); Gyimothy, Szabolcs (2); Pavo, Jozsef (2)

1: Laboratoire des Signaux et Systemes, France; 2: Budapest University of Technology and Economics, Hungary

PA10.13 (ID 368)

Kriging-based Surrogate Model for the Solution of Inverse Problems in Nondestructive Testing

Bilicz, Sandor (1,2); Lambert, Marc (1); Gyimothy, Szabolcs (2); Pavo, Jozsef (2)

1: Laboratoire des Signaux et Systemes, France; 2: Budapest University of Technology and Economics, Hungary

PA10.14 (ID 651)

3D Momentum-Based Error Criterion Dedicated to Evaluation of Magnetic and Electric Forces

Rondot, Loic (1); Mazaure, Vincent (2); Le Floch, Yann (3)

1: Cedrat, France; 2: Schneider Electric, France; 3: Cedrat, France

PA10.15 (ID 794)

Towards a Fully 3D Transient-Dedicated Error Criterion

Mazaure, Vincent Georges (1); Rondot, Loic (2)

1: Schneider Electric, France; 2: CEDRAT, France

PA10.16 (ID 168)

Parallel Time-Periodic Finite-Element Method for Steady-State Analysis of Rotating Machines

Takahashi, Yasuhito (1); Iwashita, Takeshi (2); Nakashima, Hiroshi (2); Tokumasu, Tadashi (3); Fujita, Masafumi (3); Wakao, Shinji (4); Fujiwara, Koji (1); Ishihara, Yoshiyuki (1)

1: Doshisha University, Japan; 2: Kyoto University; 3: Toshiba Corporation Power Systems Company; 4: Waseda University

Session PA11: Electric Machines and Drives (III)

16:00-17:00 – Bayside Gallery

PA11.1 (ID 280)

Comparison of Linear Switched Reluctance Machines with Mutual Coupling and Permanent Magnet Machines with Halbach Array for Wave Energy Conversion

Du, Jinhua; Liang, Deliang; Zhao, Dongdong; Gao, Lin

State Key Laboratory of Electrical Insulation and Power Equipment, School of Electrical Engineering, Xi'an Jiaotong University, China, Peoples Republic of

PA11.2 (ID 291)

The Over-Saturated Effect in Hybrid Excited Flux-Switching Machines

Zhang, Gan; Cheng, Ming; Hua, Wei

School of Electrical Engineering, Southeast University, China, Peoples Republic of

PA11.3 (ID 295)

Analysis of Force and Torque Variation on VCM Actuator for Ultrahigh TPI Magnetic Recording System

Phyu, Hla Nu; Bi, Chao; Jiang, Quan

*A*Star-Data Storage Institute, Singapore*

PA11.4 (ID 296)

Prediction of Iron Losses in Doubly Salient Permanent Magnet Machine with Rectangular Current Waveform

Zhang, Jianzhong; Wang, Minxi; Cheng, Ming

Southeast University, China, Peoples Republic of

PA11.5 (ID 298)

A Unified Algorithm of Finite Element Method for Circuit Coupled 2-D Plane and Axisymmetric Magnetic Fields and Its Applications

Niu, Shuangxia (1); Ho, S. L. (1); Li, H. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA11.6 (ID 310)

Eddy Current Reduction in High-Speed Machines and Loss Analysis with Multislice Time-Stepping Finite-Element Method

Niu, Shuangxia (1); Ho, S. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA11.7 (ID 311)

A Convenient Mesh Rotation Method of Finite Element Analysis Using Sub-matrix Transformation Approach

Ho, S. L. (1); Niu, Shuangxia (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PA11.8 (ID 317)

Electromagnetic Performance Analysis of Hybrid-Excited Flux-Switching Machines by a Nonlinear Magnetic Network Model

Hua, Wei; Zhang, Gan; Cheng, Ming

School of Electrical Engineering, Southeast University, China, Peoples Republic of

PA11.9 (ID 324)

Investigation of Outer Rotor Structures for Dual Mechanical Port Machine

Sun, Xikai; Cheng, Ming

Southeast University, China, Peoples Republic of

PA11.10 (ID 328)

Back-EMF Optimization of Constant-Frequency Double-Rotor Generator for Minimizing Harmonics

Wang, Minxi; Zhang, Jianzhong; Cheng, Ming

Southeast University, China, Peoples Republic of

PA11.11 (ID 338)

An Extended Field Reconstruction Method for Modeling of Switched Reluctance Machines

Lin, Chenjie; Wang, Wei; Fahimi, Babak

University of Texas at Dallas, United States of America

PA11.12 (ID 347)

Electromagnetic Performance Analysis of a New Permanent-magnet Machine for Four-wheel Independently Driven EVs Using Finite Element Method

Chen, Qian; Liu, Guohai; Gong, Wensheng; Zhao, Wenxiang

School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China

PA11.13 (ID 349)

Structure Optimization of Double-Sided Iron-Core Type Permanent Magnet Linear Synchronous Machine Using Response Surface Method

Zhu, Yu-Wu; Lee, Sang-Geon; Cho, Yun-Hyun

Dong-A University, Korea, South (Republic of)

PA11.14 (ID 355)

Temperature Compensation Algorithm for Current of IPMSM for Electric Scooter

Im, Jong-Bin; Ham, Sang-Hwan; Jang, Ik-Sang; Ahn, Han-Woong; Lee, Ju

Hanyang University, Korea, South (Republic of)

PA11.15 (ID 357)

Design Optimization of Magnetic Gears Using a PSO based Mesh Adjustable Finite Element Algorithm

Niu, Shuangxia (1); Chen, Ningning (1); Ho, S. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The HK Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

Session PA12: Devices and Applications (III)

16:00-17:00 – Bayside Gallery

PA12.1 (ID 511)

Cylindrical Electromagnetic Concentrator with Radial and Tangential Constitutive Parameter Spatially Invariant

Zhang, Kuang (1); Wu, Qun (1,2); Fu, Jia-Hui (1); Yang, Guo-Hui (1); Li, Le-Wei (3)

1: Harbin Institute of Technology, China, Peoples Republic of; 2: State Key Laboratory of Millimeter Waves, China, Peoples Republic of; 3: National University of Singapore, Singapore

PA12.2 (ID 522)

Design of a Novel Ultrawide-band Omnidirectional Antenna

Qiu, Jinghui; Zhang, Pengyu

Harbin Institute of Technology, P. R. China

PA12.3 (ID 528)

Magnetic Noise Analysis of Traction Power Converter in Shinkansen Bullet Train

Wakao, Shinji (1); Fukuzumi, Tetsuo (1); Otake, Asuka (1); Okutani, Tamio (2); Saito, Masahiko (3); Toyoda, Akihisa (3); Morita, Masatsugu (4); Yajima, Atsushi (4); Tashiro, Korefumi (5); Kudo, Nozomi (5); Nakahata, Yoshiki (6); Shiromizu, Tsunehiro (6)

1: Waseda University, Japan; 2: Railway Engineering Co., Ltd; 3: The Nippon Signal Co., Ltd; 4: Toshiba Corporation; 5: National Traffic Safety and Environment Laboratory; 6: Kyushu Railway Company

PA12.4 (ID 556)

Design and Dynamic Analysis of Electromagnets for Magnetic Suspension Systems based on 3-D FEM

Choi, Jang-Young; Ko, Kyoung-Jin; Jang, Seok-Myeong
Chungnam Nat'l Univ., Korea, South (Republic of)

PA12.5 (ID 565)

Development of Distribution Transformers Assembled of Composite Wound Cores

Kefalas, Themistoklis D.; Kladas, Antonios G.
National Technical University of Athens, Greece

PA12.6 (ID 577)

Analysis of Wireless Energy Transfer System Based on 3-D Finite Element Method Including Displacement Current

Zhang, Xiu; Zhao, Yanpu; Ho, S. L.; Fu, W. N.
The Hong Kong Polytechnic University, China, Peoples Republic of

PA12.7 (ID 582)

Large-Scale Transient Eddy-Current Analysis of Large-Capacity Inverter Frame by FEM with Infinite Edge Elements

Wakao, Shinji; Tsuzaki, Kenta; Otake, Asuka; Tamitani, Satoshi
Waseda University, Japan

PA12.8 (ID 616)

Analysis of Voltage Dependence of Standard High-Voltage Compressed Gas Capacitor

Xing, Jin
Tsinghua University, China

PA12.9 (ID 638)

Parallelized FMM and Dedicated PEEC Method to Model Industrial Power Interconnections – Application to Boost Chopper

Ardon, Vincent (1,2); Chadebec, Olivier (1); Guichon, Jean-Michel (1); Labie, Patrice (1); Le Floch, Yann (2); Franchino, Roger (3)
1: G2Elab, France; 2: cedrat, France; 3: Schneider-Electric, France

PA12.11 (ID 672)

Feasibility Analysis and Calculation of HTS Inductive Charging Technology

Jin, Jian-Xun (1); Chen, Xiao-Yuan (1); Zhu, Jian-Guo (2); Guo, You-Guang (2)
1: University of Electronic Science and Technology of China, China, Peoples Republic of; 2: University of Technology Sydney, Australia

PA12.12 (ID 677)

Directional Sensitivity of MEG Forward and Inverse Problems

Choi, Jong-Ho (1); Luan, Feng (1,3); Kim, Min-Hyuk (1); Jung, Hyun-Kyo (1); Im, Chang-Hwan (2)
1: Seoul National University, Korea, South (Republic of); 2: Yonsei University, Korea, South (Republic of); 3: Northeastern University, China

PA12.13 (ID 681)

Analysis of Wireless Energy Transmission for Implantable Device Based on Coupled Magnetic Resonance

Xu, Guizhi (1); Yin, Ning (1); Fu, Weinong (2); Yang, Xuewen (2); Zhang Shuai (1)

1: Hebei University of Technology, Tianjin, China; 2: The Hong Kong Polytechnic University, Hong Kong, China

PA12.14 (ID 690)

Simulation and Analysis and of High-Frequency Resistor Sensor for Corona Current Measurement under Ultra High-Voltage Direct-Current Environment

Yuan, Haiwen (1); Yang, Qinghua (1); Liu, Yuanqing (2); Lu, Jiayu (2)

1: School of Automation Science and Electrical Engineering, Beihang University; 2: China Electrical Power Research Institute

PA12.15 (ID 699)

Finite Element Analysis of Plasma Discharge and Sheath Characterization in Dry Etching Reactor

Yu, Gwang-Jun (1); Kim, Young Sun (2); Lee, Se-Hee (3); Park, Il Han (1)

1: Sungkyunkwan University, South Korea; 2: Massachusetts Institute of Technology, United States of America; 3: Kyungpook National University, South Korea

Wednesday 13 July 2011

Session OB1: Wave Propagation and EMC

09:00-10:00 Bayside Auditorium A

OB1.1 (ID 627)

Accelerated FDTD Computation Applied to Antenna Shape Optimization

Watanabe, Yuta; Watanabe, Kota; Igarashi, Hajime

Hokkaido University, Japan

OB1.2 (ID 477)

Fast Calculation of Parameter Dependencies in Dielectric Waveguides Using Sensitivity Analysis

Burschäpers, Nicola; Bandlow, Bastian, Schuhmann, Rolf

University of Paderborn, Germany

Session PB1: Optimization (I)

10:00-11:00 – Bayside Gallery

PB1.1 (ID 120)

Torque Capability Enhanced Method for Five-phase PMSM with Third Harmonic Injection

Zhao, Pinzhi; Yang, Guijie; Li, Juan; Zhao, Bo

Harbin Institute of Technology, China, Peoples Republic of

PB1.2 (ID 121)

Quantum-Inspired Evolutionary Algorithm and its Application to Inverse Problems

Ho, Siu Lau (1); Yang, Shiyu (2); Ni, Guangzheng (2)

1: Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: College of Electrical Engineering, Zhejiang University, Hangzhou, 310027, China

PB1.3 (ID 122)

A Fast Robust Optimization Methodology based on Polynomial Chaos and Evolutionary Algorithm for Inverse Problems

Ho, Siu Lau (1); Yang, Shiyu (2)

1: Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: College of Electrical Engineering, Zhejiang University, Hangzhou, 310027, China

PB1.4 (ID 126)

Design of Rotor Structure in Brushless DC Motor with Concentrated Windings Using Genetic Algorithm Combined with Cluster of Materials

Ishikawa, Takeo

Gunma University, Japan

PB1.5 (ID 131)

Linear Array Thinning using the Cross-Entropy Method and Parameter Choice

Bian, Li (1,2)

1: Harbin Institute of Technology, China, Peoples Republic of; 2: Heilongjiang Institutes of Science and Technology, China, Peoples Republic of

PB1.6 (ID 138)

Multi-objective Optimization of Inverse Problems using a Vector Cross Entropy Method

Ho, Siu Lau (1); Yang, Shiyu (2)

1: Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: College of Electrical Engineering, Zhejiang University, Hangzhou, 310027, China

PB1.7 (ID 153)

Optimization System for Electromechanical Design Based on FEA and Distributed Calculations

Suzuki, Yusaku (1); Taylor, Bill (2); Jahns, Thomas (2); Yamada, Takashi (1)

1: JSOL Corporation, Japan; 2: The University of Wisconsin-Madison

PB1.8 (ID 160)

Expert Knowledge Benefits on Discrete Optimization Algorithm

Ben Ayed, Ramzi; Brisset, Stephane

Ecole Centrale de Lille, France

PB1.9 (ID 170)

Design Optimization of an SPM Motor Using the Fuzzy-based Taguchi Method with Finite Element Simulations

Hwang, Chang-Chou (1); Chang, Chia-Ming (2); Liu, Cheng-Tsung (3)

1: Department of Electrical Engineering, Feng Chia University, Taiwan, Republic of China; 2: Ph.D. Program in Electrical and Communications Engineering, Feng Chia University, Taiwan, Republic of China; 3: Department of Electrical Engineering, National Sun Yat-sen University, Taiwan, Republic of China

PB1.11 (ID 186)

Design Optimization of an IPMSM by Topology Optimization based on the Level Set Method

Yoo, Jeonghoon; Hong, Hyeoksoo

Yonsei University, Korea, South (Republic of)

PB1.12 (ID 198)

Texturing Design for a Light Trapping System using Topology Optimization

Yoo, Jeonghoon; Soh, Hyunjun

Yonsei University, Korea, South (Republic of)

PB1.13 (ID 236)

An Improved Population-Based Incremental Learning Method for Objects Buried in Planar Layered Media

Chen, Xiaoming (1); Shao, K. R. (1); Guo, Youguang (2); Zhu, Jianguo (2); Lavers, J. D. (3)

1: Huazhong University of Science and Technology, China, Peoples Republic of; 2: Faculty of Engineering, University of Technology, Sydney, N.S.W. 2007, Australia; 3: Department of Electrical and Computer Engineering, University of Toronto, Toronto, ON M5S 3G4, Canada

PB1.14 (ID 240)

Multi-objective PSO Tool for Electromagnetic Problems with Grid Computing

Ilea, Dan (1,2,3); Berbecea, Alexandru Claud (1, 2); Gillon, Frédéric (1,2); Brochet, Pascal (1,2); Radulescu, Mircea M. (3)

1: Ecole Centrale de Lille, France; 2: Univ Lille Nord de France; 3: Technical University of Cluj-Napoca, Romania

PB1.15 (ID 256)

Low Torque Ripple Rotor Design of Interior Permanent Magnet Motor using Multi-phase Level-set and Phase-field Concept

Lim, Sunghoon; Min, Seungjae; Hong, Jung-Pyo

Session PB2: Electric Machines and Drives (IV)

10:00-11:00 – Bayside Gallery

PB2.2 (ID 376)

Permanent Magnet Machine Model Considering Saturation Effects and Non-sinusoidal EMF
Kakosimos, Panagiotis; Kimoulakis, Nikolaos; Kladas, Antonios
National Technical University of Athens

PB2.3 (ID 386)

A Study on Characteristics of PM Synchronous Motors according to Pole-Slot Combinations for Electrical Power Steering Application
Lee, Su-Jin (1); Kim, Sung-Il (1); Hong, Jung-Pyo (1); Jang, Woo-Kyo (2)
1: Hanyang University, Korea, South (Republic of); 2: Keyang Electric Machinery Co., Ltd., Korea, South (Republic of)

PB2.4 (ID 391)

Electromagnetic Analysis and Design of Two-pole Line-start Permanent Magnet Synchronous Motor
Feng, Yaojing; Yang, Kai
Huazhong University of Science and Technology, China, Peoples Republic of

PB2.5 (ID 400)

Development of a Flux-Switching Permanent Magnet Motor for Hybrid Electric Vehicles
Wu, Zhongze; Hua, Wei; Cheng, Ming
School of Electrical Engineering, Southeast University, China, Peoples Republic of

PB2.7 (ID 409)

Characteristics Comparison of Permanent Magnet Linear Synchronous Motor with Different Topology Structures for Ropeless Elevator System
Zhu, Yu-Wu; Lee, Sang-Geon; Cho, Yun-Hyun
Dong-A University, Korea, South (Republic of)

PB2.8 (ID 430)

Configuration Impacts on Eccentricity Fault Detection in Permanent Magnet Synchronous Motors
Ebrahimi, Bashir Mahdi; Faiz, Jawad
University of Tehran, Iran, Islamic Republic of

PB2.9 (ID 431)

Modification of Gyration Radius for Accurate Eccentricity Fault Detection in Induction Motors
Ebrahimi, Bashir Mahdi (1); Valavi, Mostafa (1); Faiz, Jawad (1); Akin, Bilal (2)
1: University of Tehran, Iran, Islamic Republic of; 2: exas Instruments + C2000 Systems and Applications Group

PB2.10 (ID 432)

Application of Finite Element Methods for Accurate Derating of Distribution Transformers under Simultaneous Non-sinusoidal Supply Voltages and Nonlinear Loads
Ebrahimi, Bashir Mahdi; Faiz, Jawad; Farzamand, Ashkan
University of Tehran, Iran, Islamic Republic of

PB2.11 (ID 437)

Design and Analysis of Long Primary Variable Pole Pitch Linear Induction Motor for Electromagnetic Aircraft Launch System

Mu, Shujun; Chai, Jianyun

Tsinghua University, China, Peoples Republic of

PB2.13 (ID 441)

A Position Detection Strategy for Sensorless Surface Mounted Permanent Magnet Motors at Low Speed Using Transient Finite-Element Analysis

Wang, Z. (1); Niu, Shuangxia (1); Ho, S. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PB2.14 (ID 445)

Impact of Geometrical Abnormalities in the Modeling and Diagnosis of Short Circuit Faults in Permanent Magnet Synchronous Machines

Djerdir, Abdesslem; Farooq, Jawad-Ahmed; Miraoui, Abdellati

SET/UTBM, France

PB2.15 (ID 446)

Design and Analysis of a Novel Grid-connected to Rotor Type Doubly Fed Induction Machine

You, Yong min (1); Lipo, Thomas Anthony (2); Kwon, Byung il (1)

1: Hanyang University, Korea, South (Republic of); 2: Univ. of Wisconsin-Madison, USA

Session PB3: Wave Propagation and EMC (I)

10:00-11:00 – Bayside Gallery

PB3.1 (ID 148)

Investigations into Matching Mediums for Microwave Brain Imaging

Ireland, David

University of Queensland, Australia

PB3.2 (ID 154)

Electromagnetic Scattering of the Carbon Nanotubes Excited by Electric Line Source

Wang, Yue (1,2); Wu, Qun (1,3); Wu, Yuming (4); Li, Lewei (4); He, Xunjun (2); Wang, Yan (2); Dong, Jinyu (2); Wang, Peng (2)

1: Harbin Institute of Technology; 2: Harbin University of Science and Technology, China; 3: State Key Laboratory of Millimeter Wave; 4: National University of Singapore

PB3.3 (ID 162)

Characteristics of the Boundary Model in Two-Dimensional NS-FDTD Method

Kanai, Yasushi (1); Ohtani, Tadao (2)

1: Niigata Institute of Technology, Japan; 2: Nagoya-shi, Japan

PB3.4 (ID 163)

On the Calculation of Fields in Three Dimensions using the Cauchy Integral

Seagar, Andrew D

Centre for Wireless Monitoring and Applications, Australia

PB3.5 (ID 213)

Shape Anisotropy in Micro-sized Water Bamboo Blind Shape by High Frequency Electromagnetic Computation

Fujisaki, Keisuke

Toyota Technological institute, Japan

PB3.6 (ID 219)

Development of Portable High Performance Computing System by Parallel FDTD Dedicated Computers

Fujita, Yuya; Kawaguchi, Hideki

Muroran Institute of Technology, Japan

PB3.7 (ID 265)

Compact CPW-Fed UWB Antenna with 3.5GHz/5.5GHz Band-Notched Applications

Li, Jingjing

Soochow University, China, Peoples Republic of

PB3.8 (ID 281)

A Precise Integration Method in Time Domain for Switching Transient Analysis on Long Nonuniform Transmission Lines

Li, Zhen; Wang, Shunchao; He, Jinliang; Zhang, Bo

Tsinghua University, China, Peoples Republic of

PB3.9 (ID 306)

Computing the Shielding Effectiveness of Thin Screens by the Finite Element Method

Renhart, Werner; Magele, Christian; Tuerk, Christian

Graz University of Technology, IGTE, Austria

PB3.10 (ID 344)

The Multi-layers Absorber with the Dual Elements AMC Structures

Fu, Jia-Hui (1); Yang, Guo-Hui (1); Wu, Qun (1); Zhang, Kuang (1); Meng, Fan-Yi (1); Zhang, Yong (2)

1: Harbin Institute of Technology, China, Peoples Republic of; 2: University of Electronic Science and Technology, China, Peoples Republic of

PB3.11 (ID 371)

A Novel Miniaturized Four-Band Frequency Selective Surface

Yang, Guohui; Fu, Jiahui; Zhang, Tong; Li, Wanlu; Wu, Qun; Gu, Xuemai

Harbin Institute of Technology, China, Peoples Republic of

PB3.12 (ID 373)

Optimization of Damping Distribution along a Broadband Monopole Antenna

Fickenscher, Thomas Heinrich; Berndt, Olaf

Helmut Schmidt University, Germany

PB3.13 (ID 380)

FDTD Modeling of Wave Propagation in Dispersive Havriliak-Negami Media

Rekanos, Ioannis T.

Aristotle University of Thessaloniki, Greece

PB3.14 (ID 418)

Towards the Reconstruction of Three-dimensional Sub-wavelength Objects imaged by a Veselago-Pendry Superlens

Li, Erping

A-STAR, Singapore

PB3.15 (ID 503)

Optimum Equivalent Models of Multi-Conductor Systems for the Study of Electromagnetic Signatures and Radiated Emissions from Electric Drives

Sarikhani, Ali; Barzegaran, M.; Mohammed, Osama

Florida International University, United States of America

Session PB4: Devices and Applications (IV)

11:30-12:30 – Bayside Gallery

PB4.1 (ID 451)

Dynamic Analysis of New Two-DOF Linear Oscillatory Actuator Employing 3-D Finite Element Method

Yoshimoto, Takamichi (1); Shoji, Noritaka (1); Hirata, Katsuhiko (1); Ueyama, Kenji (2); Hashimoto, Eiichiro (2); Takagi, Takahiro (3)

1: Osaka University, Japan; 2: Sanyo Electric Co.,Ltd, Japan; 3: Sanyo Seimitsu Co.,Ltd, Japan

PB4.2 (ID 710)

Failure Analysis of 75T Pulsed High Field Magnet in WHMFC

Zhou, Zhongyu; Cao, Quanliang; Song, Yunxing; Peng, Tao; Li, Liang

Huazhong University of Science and Technology, China, Peoples Republic of

PB4.3 (ID 714)

Improved High-speed Permanent Magnet Actuator With Asymmetrical Structure for Extra High Voltage Vacuum Circuit Breaker

Fang, Shuhua (1); Lin, Heyun (1); Ho, S. L. (2); Guo, Jian (1); Wang, Xianbing (1); Jin, Ping (1)

1: Southeast University, People's Republic of China; 2: Hong Kong Polytechnic University, Kowloon, Hong Kong

PB4.4 (ID 726)

Thrust Force Ripple Minimization of Linear Flux-Switching PM Brushless AC Machines

Zhou, Shigui; Yu, Haitao; Hu, Minqiang; Jiang, Chongxue

Southeast University, China, Peoples Republic of

PB4.5 (ID 767)

CFD Analysis of Temperature Characteristics and Fiber-Optic Temperature Sensor Using a Temperature Rise Experiment of 154kV Transformers

Kim, Ji-Ho; Lee, Hyang-Beom

Soongsil University, Korea, South (Republic of)

PB4.6 (ID 769)

Improving the Efficiency of a Transcutaneous Energy Transmitter and the Influence of the Specific Absorption Rate

Lebensztajn, Luiz; Wolter Ferreira, Daniela

Escola Politécnica da Universidade de São Paulo, Brazil

PB4.7 (ID 781)

Study on Output Characteristic Considering Viscosity of Magnetic Fluid Differential Pressure Sensor

Yang, Wenrong (1); Yang, Qingxin (2); Liu, Jianfei (1); Liu, Ping (1); Wang, Youhua (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: Tianjin Polytechnic University, China, Peoples Republic of

PB4.8 (ID 807)

Finite Element Simulations and Corresponding Experiments of an Advanced Low-Speed High-Torque Permanent Magnet Vernier In-Wheel Motor for Electric Vehicles

Li, Jiangui; Chau, K. T.

The University of Hong Kong, Hong Kong S.A.R. - China

PB4.9 (ID 811)

Effect of Rotor Eccentricity on Core Loss of High Speed Brushless DC Motor

Wang, Huijun; Liu, Xiquan

Beijing University of Aeronautics & Astronautics, China, Peoples Republic of

PB4.10 (ID 465)

A Robust Design of an Isotropic Planar Antenna for Wireless Power Harvest Using Evolution Strategy and Taguchi's Method

Kim, Hyeong-Seok (1); Ko, Jae-Hyeong (1); Kim, Koon-Tae (1); Kim, Jung-Han (2); Park, Jun-Seok (2)

1: Chung-Ang University, Korea, South (Republic of); 2: Kookmin University, Korea, South (Republic of)

PB4.11 (ID 820)

Study of Two Novel Permanent-Magnet Vernier Machines with Quantitative Comparison and Experimental Verifications

Li, Jiangui; Chau, K. T.

The University of Hong Kong, Hong Kong S.A.R. - China

PB4.12 (ID 824)

A Novel Sinusoidal Pressure Generator Based on Magnetic Liquid

Yang, Wenrong (1); Wang, Fei (1); Yang, Qingxin (2); Zhang, Wenling (1); Wang, Youhua (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: Tianjin Polytechnic University, China, Peoples Republic of

PB4.13 (ID 829)

A Translational Coupled Electromagnetic and Thermal Innovative Model for Induction Welding of Tubes

Dughiero, Fabrizio; Forzan, Michele; Sieni, Elisabetta

University of Padova, Italy

PB4.14 (ID 850)

The Effect of Electromagnetic Interference Shielding Effectiveness on Rogowski Coils

Ferreira da Luz, Mauricio Valencia (1); Rigoni, Mauricio (1); Weinzierl, Djonny (2); Sadowski, Nelson (1); Kost, Arnulf (3); Batistela, Nelson Jhoe (1); Bastos, João Pedro Assumpção (1); Jacobs, Ralf (3)

1: Universidade Federal de Santa Catarina, GRUCAD, P. O. Box 476, 88040-970, Florianópolis, SC, Brazil; 2: Centro Universitário de Jaraguá do Sul, P. O. Box 251, 89254-430, Jaraguá do Sul,

SC, Brazil; 3: Brandenburgische Technische Universität Cottbus, P. O. Box 101344, 03013 Cottbus, Germany

PB4.15 (ID 852)

Design and Analysis of a Tubular Fault-Tolerant Stator-Permanent-Magnet Motor for Artificial Heart

Ji, Jinghua; Zhao, Wenxiang; Wang, Fangqun

School of Electrical and Information Engineering, Jiangsu University, China

PB4.16 (ID 656)

Design, Analysis and Control of a Radial Active Magnetic Bearing for High Speed Turbomachinery Motors

Hong, Do-Kwan (1); Lee, Ki-Chang (1); Jeong, Yeon-Ho (1); Woo, Byung-Chul (1); Koo, Dae-Hyun (1); Lee, Min-Cheol (2)

1: Korea Electrotechnology Research Institute, Korea, South (Republic of); 2: School of Mechanical Engineering, Pusan National University, Geumjeong-gu, Busan, 609-735, Korea

Session PB5: Optimization (II)

11:30-12:30 – Bayside Gallery

PB5.1 (ID 860)

Multiobjective Optimization of Air-core Reactor Using Nondominated Sorting Genetic Algorithm with a Local Search Strategy

Zhang, Chengfen; Ma, Xikui; Zhao, Yanzhen

State Key Lab of Electrical Insulation and Power Equipment, School of Electrical Engineering, Xi'an Jiaotong University

PB5.2 (ID 282)

Pareto Optimisation of a Switched Parasitic Array Antenna

Ireland, David (1); Lu, Jun Wei (2); Lewis, Andrew (2)

1: University of Queensland, Australia; 2: Griffith University, Australia

PB5.3 (ID 286)

A New Approach for Magnetic Arc Optimization to Reduce Cogging Torque in Surface Mounted Permanent Magnet Motors

Lin, D. (1); Ho, S.L. (2); Fu, W. N. (2); Lin, X. (3)

1: Ansys Inc., 225 West Station Square Drive, Pittsburgh, PA 15219, USA; 2: Electrical Engineering Department, Hong Kong Polytechnic University, Hong Kong; 3: Electrical and Computer Engineering Department, Carnegie Mellon University, USA

PB5.4 (ID 303)

Continuous-GRASP Algorithm Combined with Local Differential Evolution Search for the Solution of Electromagnetic Design Problems

Alotto, Piergiorgio (1); Dos Santos Coelho, Leandro (2); Vianna Neto, Julio Xavier (3)

1: Università di Padova, Italy; 2: Pontifical Catholic University of Parana, Curitiba, Brazil; 3: Federal University of Parana, Curitiba, Brazil

PB5.5 (ID 312)

Optimal Design Method Based on Magnetic Material Distributions Using Multi Step Genetic Algorithm with Reduced Design Space

Okamoto, Yoshifumi; Tominaga, Yusuke; Sato, Shuji

Utsunomiya University, Japan

PB5.6 (ID 313)

Optimization with State Space Approaches I: A System Theoretic View on Optimization Algorithms

Steiner, Gerald; Neumayer, Markus

Institute of Electrical Measurement and Measurement Signal Processing, Austria

PB5.7 (ID 314)

Optimization with State Space Approaches II: System Theoretic Concepts per Example

Neumayer, Markus; Steiner, Gerald

Institute of Electrical Measurement and Measurement Signal Processing, Austria

PB5.8 (ID 331)

Reliability-Based Optimization for Electromagnetic Design Employing Reliability Index Approach

Kim, Dong-Hun (1); Kim, Dong-Wook (1); Jeung, Giwoo (1); Sung, Young Hwa (2)

1: Kyungpook National University, Korea, South (Republic of); 2: Korea Institute of Science and Technology Information, Korea, South (Republic of)

PB5.9 (ID 333)

Analysis and Design of a New Fault-Tolerant Stator-Permanent-Magnet Motor

Zhao, Wenxiang (1,2); Cheng, Ming (1); Chau, K. T. (1,3); Cao, Ruiwu (1); Ji, Jinghua (2)

1: School of Electrical Engineering, Southeast University, Nanjing, China; 2: School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China; 3: Department of Electrical and Electronic Engineering, The University of Hong Kong, Hong Kong, China

PB5.10 (ID 335)

Proposal of a Three Levels Output Space Mapping Strategy

Ben Ayed, Ramzi; Gong, Jinlin; Bisset, Stephane; Gillon, Federic; Brochet, Pascal

Ecole Centrale de Lille, France

PB5.11 (ID 339)

Quick Tools for Stochastic Tolerance Analysis

Formisano, Alessandro; Martone, Raffaele

Seconda Università di Napoli, Italy

PB5.12 (ID 348)

High Dimensional Electromagnetic Design Problems Based on Sequential Subspace Optimization Method and Grey Correlation Analysis

Lei, Gang (1,2); Shao, Keran (1); Guo, Youguang (2); Zhu, Jianguo (2); Lavers, J. Douglas (3)

1: College of Electrical and Electronic Engineering, Huazhong University of Science and Technology, China; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia; 3: Department of Electrical and Computer Engineering, University of Toronto, Canada

PB5.13 (ID 351)

Improved Sequential Optimization Method for Multiobjective Electromagnetic Device Design Problems

Lei, Gang (1,2); Yang, G. Y. (1); Shao, K. R. (1); Guo, Youguang (2); Zhu, Jianguo (2); Xu, Wei (2)

1: College of Electrical and Electronic Engineering, Huazhong University of Science and Technology, China; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

PB5.14 (ID 366)

Multidisciplinary Robust Optimization Design of Electrical Drive System with PM Transverse Flux Machine and BLDC Control Scheme

Lei, Gang (1,2); Wang, Yi (2); Guo, Youguang (2); Shao, Keran (1); Zhu, Jianguo (2)

1: College of Electrical and Electronic Engineering, Huazhong University of Science and Technology, China; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

PB5.15 (ID 379)

Tissue Detection in MR Images Using Immune Feature Weighted Support Vector Machines

Guo, Lei (1); Zhao, Lei (2,3); Wu, Youxi (1); Li, Ying (1); Xu, Guizhi (1); Wang, Youhua (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: Harvard Medical School and Brigham & Women's Hospital, Boston, MA, USA; 3: XinAoMDT Technology Co., Ltd., China, Peoples Republic of

Session PB6: Electric Machines and Drives (V)

11:30-12:30 – Bayside Gallery

PB6.1 (ID 448)

Reducing Cogging Torque in Surface-mounted Permanent Magnet Synchronous Motors by Non-uniform Distributed Magnets

Wang, Daohan (1); Jung, Sang-Yong (1); Wang, Xiuhe (2)

1: Dong-A University, Department of Electrical Engineering, Korea; 2: Shandong University, School of Electrical Engineering, China

PB6.2 (ID 449)

Performance Comparison of Longitudinal Flux and Transverse Flux Permanent Magnet Machines for Turret Applications with Large Diameter

Lee, Ji-Young (1); Hong, Do-Kwan (1); Woo, Byung-Chul (1); Park, Doo-Hwan (2); Nam, Byoung-Uk (3)

1: Korea Electrotechnology Research Institute, Korea; 2: Doosan Corporation Mottrol, Korea; 3: Agency for Defense Development, Korea

PB6.3 (ID 485)

3-D Finite Element Analysis of Additional Eddy Current Losses in Induction Motors

Stermecki, Andrej (1); Bíró, Oszkár (1); Bakhsh, Imam (1); Ofner, Georg Ofner (2); Ingruber, Reinhard Ingruber (2)

1: Graz University of Technology, Austria; 2: ELIN Motoren GmbH

PB6.4 (ID 490)

Determination of Saturated Reactance in PMSM with Time-stepping Finite Element Simulation and Experiment

Li, Heming; Zhang, Jian; Liu, Mingji; Luo, Yingli

North China Electric Power University, Beijing, China

PB6.5 (ID 513)

Permanent Magnet Online Magnetization Characteristic Analysis of a Flux Mnemonic Double Salient Motor Using a Piecewise-linear Hysteresis Model

Zhu, Xiaoyong; Quan, Li; Zhang, Bo; Ding, Qian

Jiangsu University, China, Peoples Republic of

PB6.7 (ID 534)

Finite Element Computation of Magnetic Vibration Sources in 100kW Two Fractional-Slot Interior Permanent Magnet Machines for Ship

Lee, Sun Kwon (1); Kang, Gyu Hong (1); Hur, Jin (2)

1: Korea Marine Equipment Research Institute, Korea, South (Republic of); 2: University of Ulsan, Korea, South (Republic of)

PB6.8 (ID 539)

Nonlinear Equivalent Magnetic Circuit Analysis for Linear Flux-Switching Permanent Magnet Machines

Zhou, Shigui; Yu, Haitao; Hu, Minqiang; Jiang, Chongxue

Southeast University, China, Peoples Republic of

PB6.9 (ID 546)

A Novel Method to Reduce Cogging Torque in Permanent Magnet Machines with Different Slot Opening Width

Wang, Daohan (1); Jung, Sang-Yong (1); Wang, Xiuhe (2)

1: Dong-A University, Department of Electrical Engineering, Korea; 2: Shandong University, School of Electrical Engineering, China

PB6.10 (ID 555)

Experimental Verification and Electromagnetic Analysis for Performance of Interior PM Motor according to Slot/Pole Number Combination

Choi, Jang-Young; Park, Yu-seop; Jang, Seok-Myeong

Chungnam Nat'l Univ., Korea, South (Republic of)

PB6.12 (ID 578)

Optimal Design of High Precision Planar Actuator with Halbach Magnet Array

Jiang, Hao; Huang, Xueliang; Zhou, Gan

Engineering Research Center for Motion Control of MOE, School of Electrical Engineering, Southeast University, China, Peoples Republic of

PB6.13 (ID 580)

Numerical Verification of Initial Rotor Position Detection Scheme Proposed based on Analytical Machine Model

Wang, Yi; Zhu, Jianguo; Guo, Youguang; Li, Yongjian; Lei, Gang

University of Technology, Sydney

PB6.14 (ID 581)

Back-EMF design of PM Motor using PCB winding by Space Harmonic Analysis Methods

Chang, Jung Hwan; Jang, Dae Kyu; Kim, Tae Woo

Electrical Engineering / Dong-A University, Korea, South (Republic of)

Session OB2: Devices and Applications

13:30-14:30 Bayside Auditorium A

OB2.1 (ID 404)

Numerical Investigation of the Effects of Loading and Slot Harmonics on the Core Losses of Induction Machines

Dlala, Emad (1); Bottauscio, Oriano (2); Chiampi, Mario (3); Zucca, Mauro (2); Belahcen, Anouar (1); Arkkio, Antero (1)

1: Aalto University School of Science and Technology, FI-00076 Aalto, Finland; 2: Istituto Nazionale di Ricerca Metrologica (INRIM), Turin, I-10135, Italy; 3: Politecnico di Torino, Turin, I-10129, Italy

OB2.2 (ID 575)

A Magnetic Field and Electric Circuit Hybrid Coupled Transient Finite Element Method and its Application to Electric Machines

Ho, S. L. (1); Niu, Shuangxia (1); Li, H. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

Session PB7: Wave Propagation and EMC (II)

14:30-15:30 – Bayside Gallery

PB7.1 (ID 603)

Handling Material Discontinuities in the Generalized Finite Element Method to Solve Wave Propagation Problems

Facco, Werley Gomes (1); Silva, Elson José (2); Moura, Alex Sander (1); Lima, Naísses Zoia (2); Saldanha, Rodney Rezende (2)

1: Universidade Federal Dos Vales Do Jequitinhonha E Do Mucuri, Brazil; 2: Universidade Federal De Minas Gerais, Brazil

PB7.2 (ID 342)

Equivalent Circuit Modeling of Frequency-Selective Surfaces Based on Nanostructured Transparent Thin Films

D'Amore, Marcello (2); De Santis, Valerio (1); Feliziani, Mauro (1)

1: University of L'Aquila, Italy; 2: La Sapienza University of Rome, Italy

PB7.3 (ID 632)

EMC Analysis in a Living Environment by Parallel Finite Element Method

Takei, Amane (1); Sugimoto, Shin-ichiro (2); Ogino, Masao (3); Yoshimura, Shinobu (2); Kanayama, Hiroshi (3)

1: Tomakomai National College of Technology / Japan; 2: The University of Tokyo / Japan; 3: Kyushu University / Japan

PB7.4 (ID 646)

3D Generalized Finite-Difference Modeling of Time Reversal for Localization of Dielectric Obstacles — the Impact of Dipole Array Density

Benhamouche, Mehdi (1,2); Bernard, Laurent (1); Pichon, Lionel (1); Lesselier, Dominique (2)

1: LGEP, France; 2: L2S, France

PB7.5 (ID 655)

Computational Investigation and Design of Planar EBG Structures for Coupling Reduction in Antenna Applications

Yioultsis, Traianos; Assimonis, Stylianos; Antonopoulos, Christos

Aristotle University of Thessaloniki, Greece

PB7.6 (ID 686)

Robust Optimization of IC Tag Antennas

Makimura, H.; Itoh, Y.; Watanabe, Y.; Igarashi, H
Hokkaido University, Japan

PB7.7 (ID 721)

Optimal Design of a RFID Tag Antenna Based on Plane-Wave Incidence

Kim, Dong-Hun (1); Byun, Jin-Kyu (2); Choi, Nak-Sun (1); Chung, Young-Seek (3)
1: Kyungpook National University, Korea, South (Republic of); 2: Soongsil University, Korea, South (Republic of); 3: Kwangwoon Univ, Korea, South (Republic of)

PB7.8 (ID 724)

Application Criteria of Surface Impedance Boundary Conditions for Finite-Difference Time-Domain Analyses of Near- and Far-Field Configurations

De Santis, Valerio (1); Cruciani, Silvano (1); Feliziani, Mauro (1); Okoniewski, Michal (2)
1: University of L'Aquila, Italy; 2: University of Calgary, Canada

PB7.9 (ID 793)

A Stable Iterative Approach for 3D Electromagnetic Full Wave Analysis Based on Wave Equation

Murayama, Toshio (1); Muto, Akira (1); Yoshimura, Shinobu (2)
1: Sony Corporation, Japan; 2: The University of Tokyo, Japan

PB7.10 (ID 795)

Assessment of Time Domain Beam Propagation Methods using Padé Approximants for Optical Waveguide Analyses

Schulz, Dirk
Technische Universität Dortmund, Germany

PB7.11 (ID 833)

Propagation Characteristics of Lightning Radiation Electromagnetic Field in Complex Media under the Ground

Zhang, Shaoqing; Ding, Tongyu; Wu, Qun
Harbin Institute of Technology, China, Peoples Republic of

PB7.12 (ID 835)

Design of Jamming Systems through a Multi-Criterion Approach: Assessing the Optimal Antenna Positioning on High Complexity Indoor Environments

Santos, Guilherme (1,2); Grubisic, Stevan (1,2); Carpes Jr., Walter Pereira (1,2)
1: Federal University of Santa Catarina, Brazil; 2: Grupo de Concepção e Análise de Dispositivos Eletromagneticos - GRUCAD

PB7.13 (ID 890)

Simulation and Analysis of High Frequency Electromagnetic Interference in Power Supplies Using Hybrid TLM and MoM Method

Jahanbakht, Mohammad; Bahadorzadeh, Mehdi; Lotfi Neyestanak, Abbas Ali
Islamic Azad University, Shahr-e-Qods Branch, Iran, Islamic Republic of

PB7.14 (ID 116)

Finite Element Analysis of Induced Diffraction Gratings in Nonlinear Optics

Nicolet, Andre; Godard, Pierre; Zolla, Frederic
Aix-Marseille Université, France

PB7.15 (ID 658)

Calculating the Band Structure of Photonic Crystals through the Meshless Local Petrov-Galerkin (MLPG) Method and Periodic Shape Functions

Nicomedes, Williams Lara; Mesquita, Renato C.; Moreira, Fernando J. S.

Federal University of Minas Gerais, Brazil

Session PB8: Devices and Applications (V) and Benchmarking (TEAM)

14:30-15:30 – Bayside Gallery

PB8.1 (ID 868)

Reducing the Output Torque Ripple of Permanent Magnet Synchronous Machine Drive System Caused by Cogging Torque

Chen, Jiaxin (1); Deng, Hao (1); Guo, Youguang (2); Zhu, Jianguo (2); Fu, Weinong (3)

1: Donghua University, Shanghai, China; 2: University of Technology, Sydney, Australia; 3: Hong Kong Polytechnic University, Hong Kong, China

PB8.2 (ID 880)

Modeling of a Power Transformer Using the Perturbation Finite Element Method

Ferreira da Luz, Mauricio Val1encia (1); Dular, Patrick (2,3); Leite, Jean Viane1 (1); Kuo-Peng, Patrick (1)

1: Federal University of Santa Catarina, Brazil; 2: ACE, Dept. of Electrical Engineering and Computer Science, University of Liège, Belgium; 3: FNRS, University of Liège, Belgium

PB8.3 (ID 882)

Research on Electromagnetic Environment Equivalent Parameters between Corona Cage and HVDC Transmission Lines by Finite Element Method

Liu, Yuanqing

China Electric Power Research Institute, China, Peoples Republic of

PB8.4 (ID 887)

Modeling Deep Brain Stimulation Incorporating Electrode-Tissue Interfaces

Choi, Charles T. M.; Tsou, Yi-Lin

National Chiao Tung University, Taiwan, Republic of China

PB8.5 (ID 888)

Finite Element Model of Neuron-Electrode Sealing Interface

Choi, Charles T. M.; You, Shan-Jen; Wang, Shao-Po

National Chiao Tung University, Taiwan, Republic of China

PB8.6 (ID 889)

High Temperature Superconducting DC Fault Current Limiter Using Soft Magnetic Composites

Chu, Jianfeng (1); Wang, Shuhong (1); Qiu, Jie (1); Zhu, Jian Guo (2); Guo, Youguang (2); Lin, Zhi Wei (2)

1: Xi'an Jiaotong University, China, Peoples Republic of; 2: University of Technology, Sydney, Australia

PB8.7 (ID 897)

Numerical Analysis and Optimization of an Electromagnetic Micro-Generator for Vibration Energy Harvesting Applications

Rotaru, Mihai (1); Kheng, Tan Yen (2); Sykulski, Jan K. (1)

1: University of Southampton; 2: Nanyang Technological University

PB8.8 (ID 898)

Research on the Radial-Radial Magnetic Field Modulated Brushless Compound-Structure Permanent-Magnet Synchronous Machine

*Zheng, Ping; Bai, Jingang; Zhao, Jing; Tong, Chengde; Sui, Yi
Harbin Institute of Technology, China, Peoples Republic of*

PB8.9 (ID 900)

Influence of Frames, Flitch Plates and Shielding Under the Total Losses of a Single-Phase Shunt Reactor

*Ferreira da Luz, Mauricio Valencia
Federal University of Santa Catarina, Brazil*

PB8.10 (ID 901)

Performance Simulation of Automotive Connector Considering Coupled Electromagnetic Force and Fretting Vibration

*Hong, Jun; Wang, Wei; Li, Baotong; Ying, Guoqing; Wang, Shuhong
Xi'an Jiaotong University, China*

PB8.11 (ID 141)

3-D Finite Element Modeling and Validation of Power Frequency Multi-Shielding Effect

Cheng, Zhiguang (1); Takahashi, Norio (2); Forghani, Behzad (3); Liu, L. (1); Fan, Y. (1); Liu, T. (1); Zhang, J. (1); Wang X. (1)

1: Baoding Tianwei Group Co., Ltd, China, Peoples Republic of; 2: Dept. of E.E., Okayama University, Japan; 3: Infolytica co., Canada

PB8.12 (ID 251)

Study on Eddy-Current Loss inside Copper Shielding of Transformers under DC biasing Condition

Zhao, Zhigang (1); Liu, Fugui (1); Wang Youhua (1); Cheng, Zhiguang (2); Yan, Weili (1)

1: Province-Ministry Joint Key Laboratory of Electromagnetic Field and Electrical Apparatus Reliability, Hebei University of Technology, China, Peoples Republic of; 2: Research & Development Center, Baoding Tianwei Group Co., LTD

PB8.13 (ID 812)

Simulation of Axon Activation by Electrical Stimulation with Finite Difference Time Domain Method

*Choi, Charles T. M.; Sun, Shu Hai
National Chiao Tung University, Taiwan, Republic of China*

Session PB9: Optimization (III)

14:30-15:30 – Bayside Gallery

PB9.1 (ID 435)

The Application of Virtual Instruments to the Identification and Automatic Classification of the Defect Images

Gizewski, Tomasz (1); Wac-Wlodarczyk, Andrzej (1); Stryczewska, Henryka D. (1); Goleman, Ryszard (1); Nafalski, Andrew (2)

1: Lublin University of Technology, Poland; 2: School of Electrical and Information Engineering, University of South Australia

PB9.2 (ID 436)

Design and Analysis of New Five-Phases Fault-tolerant in-Wheel Permanent-Magnet Motors
Liu, Guohai; Gong, Wensheng; Chen, Qian; Zhao, Wenxiang
School of Electrical and Information Engineering, Jiangsu University, Zhenjiang, China

PB9.3 (ID 442)

A Chaotic Approach of Differential Evolution Optimization Applied to Loudspeaker Design Problem
dos Santos Coelho, Leandro (2); C. Bora, Teodoro (2); Lebensztajn, Luiz (1)
1: Escola Politécnica da Universidade de São Paulo, Brazil; 2: Automation and Systems Laboratory, PPGEPS, Pontifical Catholic University of Paraná

PB9.4 (ID 457)

Geometry Optimization of PMSMs Comparing Full and Fractional Pitch Winding Configurations for Aerospace Actuation Applications
Tsampouris, Evangelos; Beniakar, Minos; Kladas, Antonios
National Technical University of Athens, Greece

PB9.5 (ID 469)

Covariance Matrix Adaptation Evolution Strategy Using a Diversity-Guided Step-Size Tuning for Optimization in Electromagnetics
Alotto, Piergiorgio (1); Dos Santos Coelho, Leandro (2); Klein, Carlos E. (3)
1: Università di Padova, Italy; 2: Pontifical Catholic University of Parana, Curitiba, Brazil; 3: Federal University of Parana, Curitiba, Brazil

PB9.6 (ID 481)

Numerical Study to Design the New Type Compact NMR Magnet Using HTS Bulk Annuli with High Magnetic Field Performances
Kim, Seokbeom
Okayama University, Japan

PB9.7 (ID 486)

A Fuzzy Niching Evolution Strategy for Multiobjective Optimization
Magele, Christian (1); Alotto, Piergiorgio (2); Jaindl, Michael (1); Koestinger, Alice (1); Renhart, Werner (1)
1: Graz University of Technology, Austria; 2: Università degli Studi di Padova, Italy

PB9.8 (ID 492)

The Imaginary Pareto Front: a Helpful Tool for Setting Optimisation Problem for Design of Electromagnetic Devices
Wurtz, Frederic (1); Kuo-Peng, Patrick (2); Soares de Carvalho, Elissa (2)
1: CNRS, France; 2: GRUCAD

PB9.9 (ID 493)

Synthesizing Distributions of Magnetic Nanoparticles for Clinical Hyperthermia
Dughiero, Fabrizio (1); Di Barba, Paolo (2); Sieni, Elisabetta (1)
1: University of Padova, Italy; 2: University of Pavia, Italy

PB9.10 (ID 508)

An Effective Method for Optimal Design of Electrical Machines Based on Finite Element Analysis
Ying, Luo (1); Haisen, Zhao (1); Xiaofang, Liu (1); Baldassari, Peter (2); Wang, Ren H. (3)

1: North China Electric Power University, China, Peoples Republic of; 2: MagneForce Software System Inc.; 3: Stanley Black & Decker Corporation

PB9.11 (ID 512)

Randomly Guided Mesh Adaptive Direct Search Algorithm Applied for Optimal Design of Electric Machines based on FEA

Lee, Dongsu; Lee, Seungho; Kim, Jong-Wook; Jung, Sang-Yong

Dong-A University, Korea, South (Republic of)

PB9.12 (ID 520)

Robust Topology Optimization of an IPM Machine using Sensitivity Analysis

Lowther, David; Li, Min

McGill University, Canada

PB9.13 (ID 535)

Estimation of the Parameters of Lorentz Dispersive Media Using a Time-Domain Inverse Scattering Technique

Papadopoulos, Theseus G.; Rekanos, Ioannis T.

Aristotle University of Thessaloniki, Greece

PB9.14 (ID 543)

Two Improved Particle Swarm Optimization Algorithms for Electromagnetic Device Optimization

Pang, Lingling; Wang, Youhua; Yang, Xiaoguang; Chen, Tanggong

Hebei University of Technology, China, Peoples Republic of

PB9.15 (ID 551)

Topology Optimization of Magnet Shape for Synchronous Machines

Khliissa, Radhouane (1); Gillon, Frederic (1); Takorabet, Noureddine (2)

1: Ecole Centrale de Lille, L2EP, France; 2: Institut National Polytechnique de Lorraine, GREEN, France

Session PB10: Electric Machines and Drives (VI)

16:00-17:00 – Bayside Gallery

PB10.1 (ID 585)

New Fault Impedance Modeling for Inter-Turn Fault Analysis of IPM motor

Kim, Kyung-Tae (1); Hur, Jin (1); Kang, Gyu-Hong (2)

1: University of Ulsan, Korea, South (Republic of); 2: Korea Marine Equipment Research Institute, Busan, Korea, South (Republic of)

PB10.2 (ID 589)

Dynamic Modeling of IPM-type BLDC Motor for Irreversible Demagnetization Due to Stator Turn Fault

Kim, Hyung-Kyu (1); Kim, Hyung-Wook (1); Hur, Jin (1); Kim, Byeong-Woo (1); Kang, Gyu-Hong (2)

1: University of Ulsan, Korea, South (Republic of); 2: Korea Marine Equipment Research Institute, Busan, Korea, South (Republic of)

PB10.3 (ID 590)

Novel Technique to Reduce Leakage Current and Commutation Losses in Electric Drives

Khan, Hamid (1,2); Miliiani, El-Hadj (1); Drissi, Khalil El Khamlichi (2)

1: IFP Energies Nouvelles, France; 2: UBP, LASMEA, France

PB10.4 (ID 604)

A Study on Torque Ripple Calculation for Permanent Magnet Motor according to Load Angle

Kim, Ki-Chan; Kim, Min-Gyu; Ryu, Dong-Seok

Hanbat National University, Korea, South (Republic of)

PB10.5 (ID 614)

Research on the Characteristics of a Novel Tubular Primary Permanent Magnet Linear Generator for Wave Energy Conversion

Huang, Lei; Haitao, Yu; Minqiang, Hu; Bang, Yuan

Southeast University, China, Peoples Republic of

PB10.6 (ID 618)

The Thrust Density Optimal Design of Single Sided PMLSM for Considering Temperature Rise of Winding

Ahn, Ho-Jin; Cho, Gyu-Won; Jang, Ki-Bong; Kim, Gyu-Tak

Changwon National University, Korea, South (Republic of)

PB10.7 (ID 619)

The Optimization of Flux-Barrier Shape for Minimization Cogging torque and Radial Magnetic Force in IPMSM

Cho, Gyu-Won; Woo, Seok-Hyeon; Jang, Ki-Bong; Kim, Gyu-Tak

Changwon National University, Korea, South (Republic of)

PB10.8 (ID 620)

Magnetic Circuit Design of SPM Fractional-slot Motor for Vibration Reduction

Jang, Woo-Sung; Ji, Seung-Hun; Jang, Ki-Bong; Kim, Gyu-Tak

Changwon National University, Korea, South (Republic of)

PB10.9 (ID 621)

The Optimal Design of Thrust Density in Double Sided Coreless PMLSM for Considering Winding Temperature Rise

Ahn, Ho-Jin; Cho, Gyu-Won; Woo, Seok-Hyeon; Jang, Ki-Bong; Kim, Gyu-Tak

Changwon National University, Korea, South (Republic of)

PB10.10 (ID 622)

On the Importance of Using Correct Saturated Steel B/H Curves for Performance Predictions in Induction Motors for Modern Electric and Hybrid Vehicular Drives

Knight, Andrew (1); Dorrell, David (2)

1: University of Alberta, Canada; 2: University of Technology Sydney, Australia

PB10.11 (ID 625)

Alternative Rotor Designs for High Performance Brushless Permanent Magnet Machines for Hybrid Electric Vehicles

Dorrell, David (1); Hsieh, Min-Fu (2); Knight, Andrew (3)

1: University of Technology Sydney, Australia; 2: National Cheng Kung University, Taiwan; 3: University of Alberta

PB10.12 (ID 629)

Performance Analysis of an HTS Magnetic Suspension and Propulsion System with a Double-Sided HTSLSM Driving

Zheng, Lu-Hai (1); Jin, Jian-Xun (1); Guo, You-Guang (2); Xu, Wei (2); Zhu, Jian-Guo (2)
1: School of Automation, University of Electronic Science and Technology of China, Chengdu, China; 2: Faculty of Engineering and Information Technology, University of Technology Sydney, Sydney, Australia

PB10.13 (ID 633)

Driving Characteristics of an HTS Linear Synchronous Motor for an HTS Magnetic Suspension and Propulsion System

Jin, Jian-Xun (1); Zheng, Lu-Hai (1); Xu, Wei (2); Guo, You-Guang (2); Zhu, Jian-Guo (2)
1: School of Automation, University of Electronic Science and Technology of China, Chengdu, China; 2: Faculty of Engineering and Information Technology, University of Technology Sydney, Sydney, Australia

PB10.14 (ID 630)

Finite Element Analysis and Evaluation of Stator Insulation in High Voltage Synchronous Motor

Zhang, Jun (1); Li, Haibo (1); Wang, Shuhong (1); Qiu, Jie (1); Zhu, Jian Guo (2); Guo, Youguang (2)
1: Xi'an Jiaotong University, China, Peoples Republic of; 2: University of Technology, Sydney, Australia

PB10.15 (ID 635)

Analysis of Interior Permanent Magnet Synchronous Motor on Electromagnetic Vibration

Sun, Tao; Lee, Jae-Min; Lee, Byeong-Hwa; Kim, Hea-Joong; Hong, Jung-Pyo
Hanyang University, Korea, South (Republic of)

PB10.16 (ID 439)

Analysis of Novel Brushless DC Motors Made of Soft Magnetic Composite

Ishikawa, Takeo; Takahashi, Kazutoshi; Ho, QuangViet; Matsunami, Michio; Kurita, Nobuyuki
Gunma University, Japan

Session PB11: Wave Propagation and EMC (III)

16:00-17:00 – Bayside Gallery

PB11.1 (ID 109)

Fast and Accurate Prediction of Reverberation Chambers' Resonant Frequencies Using Time-Domain Integral Equation and Matrix Pencil Method

Zhao, Huapeng; Shen, Zhongxiang
Nanyang Technological University, Singapore

PB11.2 (ID 193)

A Full PEEC Modeling of EMI Filter Inductors in Frequency Domain

Kovacevic, Ivana; Friedli, Thomas; Musing, Andreas; Kolar, Johann
Swiss Federal Institute of Technology, Switzerland

PB11.3 (ID 200)

Application of Chaotically Frequency Modulated SVPWM for EMC Enhancement of Closed-loop Motor Drives

Wang, Zheng; Chau, K. T.; Cheng, M.; Ding, Shichuan
Southeast University, China, Peoples Republic of

PB11.5 (ID 224)

Transmission Line Modeling Method Applied to Evaluate Effective Length of Impulsive Grounding Electrodes

Gazzana, Daniel da Silva (1); Bretas, Arturo Suman (1); Dias, Guilherme Alfredo D. (1); Telló, Marcos (2)

1: Federal University of Rio Grande do Sul - UFRGS, Brazil; 2: Pontifical Catholic University of Rio Grande do Sul - PUCRS, Brazil

PB11.6 (ID 248)

Biological Effects of Wi-Fi Hot Spots in Indoor Environments: a Numerical Study

Cacciola, Matteo; Megali, Giuseppe; Pellicanò, Diego; Morabito, Francesco Carlo
University Mediterranea of Reggio Calabria, Italy

PB11.7 (ID 304)

EMC Modelling and Optimization for Reducing Capacitances of Interconnections with Arbitrary Shape in Multilayer VLSI Circuits

Zhu, Boyuan (1); Lu, Junwei (1); Zhu, Mingcheng (2)

1: School of Engineering, Griffith University, Australia; 2: College of Information Engineering, Shenzhen University

PB11.8 (ID 321)

Segmented Locally One Dimensional FDTD (S-LOD-FDTD) Method for EM Propagation Modeling in Large Complex Tunnel Environments

Rana, Md. Masud; Mohan, Ananda S.
University of Technology Sydney (UTS), Australia

PB11.9 (ID 407)

Improvement of EMI Filters Performance by Taking into Account Frequency-Dependant Magnetic Material Properties

Mesmin, Fanny (1); Sixdenier, Fabien (2)
1: G2Elab, France; 2: Ampère, France

PB11.10 (ID 412)

Study on Electromagnetic Radiation of the Valve Tower in HVDC Converter Station

Zhang, Weidong
North China Electric Power University, China, Peoples Republic of

PB11.11 (ID 413)

Analysis of Coupling Mechanism of VFTO in 1000kV GIS Substation on the Secondary Cables

Chen, Peilong; Zhang, Weidong
North China Electric Power University, China, Peoples Republic of

PB11.12 (ID 416)

Research on Shielding Effectiveness of UHVDC Hall Structure

Luo, Qun; Zhang, Weidong
North China Electric Power University, China, Peoples Republic of

PB11.13 (ID 421)

An Electromagnetic Vibration Exciter for Rapping System of Collecting Plate in Electrostatic Precipitator

Kim, Je-Hoon (1); Kim, Jin-Ho (1); Jeong, Sang-Hyun (2); Han, Bang-Woo (2)

1: Yeungnam University, Korea, South (Republic of); 2: Korea Institute of Machinery & Materials, Daejeon, Korea, South (Republic of)

PB11.14 (ID 424)

Using Equivalent Emission Sources to Evaluate the Coupling between Components

Zangui, Sanâa (1); Berger, Kévin (2); Perrussel, Ronan (1); Clavel, Edith (3); Sartori, Carlos (4); Vollaïre, Christian (1)

1: Ampere laboratory – UMR CNRS 5005, France; 2: 2Groupe de recherche en Électrotechnique et Electronique de Nancy- EA 4366; 3: Laboratoire G2Elab – UMR CNRS 5269; 4: Escola Politécnica da Universidade de São Paulo LMAG/PEA/EPUSP

PB11.15 (ID 842)

From Galilean Covariance to Gauge Conditions: A Thermodynamic Insight to Signal Integrity

Mazauric, Vincent Georges (1); Borges, Thiago Henrique (1); Rondot, Loïc (2)

1: Schneider Electric, France; 2: CEDRAT, France

Session PB12: Nanomagnetism and Applications and Photonics/Optoelectronics

16:00-17:00 – Bayside Gallery

PB12.1 (ID 104)

High Frequency Magnetization Response of Perpendicular Double-Layer Media

Shiiki, Kazuo; Goto, Akimori

Keio University, Japan

PB12.2 (ID 152)

Numerical Modeling of Joule Heating in a Single Carbon Nanotube during Electron Field Emission

Mologni, Juliano Fujioka (1); Alves, Marco Antonio Robert (2); Percebon, Leandro Alberto (1);

Magri, Vanessa Przybylski Ribeiro (3); Bonadiman, Mateus (1); Siqueira, Cesareo de La Rosa (1)

1: ESSS - Engineering Simulation & Scientific Software, Brazil; 2: UNICAMP - University State of Campinas; 3: GSOM -CETUC / PUC-Rio

PB12.3 (ID 189)

Micromagnetic Simulations of Recording Write Heads – A Comparison of Various Micromagnetic Software

Kanai, Yasushi (1); Tsukamoto, Toshio (1); Koyama, Kazuya (1); Yoshida, Kazuetsu (2); Shimizu, Koichi (3); Uehara, Yuji (3); Greaves, Simon J. (4); Muraoka, Hiroaki (4)

1: Niigata Institute of Technology; 2: Kogakuin University; 3: Fujitsu Ltd.; 4: Tohoku University

PB12.5 (ID 479)

Proposal and Analysis of the MRAM with Pole Type System by Using Hysteresis Modeling

Won, Hyuk; Kim, Hui Min; Park, Gwan Soo

Pusan National University, Korea, South (Republic of)

PB12.6 (ID 484)

Magnetic Hysteresis Modeling in Perpendicular Toggle-MRAM System for Scalability Cell Technology

Won, Hyuk; Park, Gwan Soo

Pusan National University, Korea, South (Republic of)

PB12.7 (ID 540)

Application of Halbach-like Magnet Arrays to Magnetic Drug Targeting

*Ji, Yongliang; He, Wei; Xu, Zheng; Yang, Fan
ChongQing University, China, Peoples Republic of*

PB12.8 (ID 606)

Homogenous Magnetic Markers Immunoassay Measurements by SV-GMR Needle Probe

Haraszczuk, Ryszard Grzegorz (1,2); Yamada, Sotoshi (1); Kakikawa, Makiko (1); Ueno, Toshiyuki (1); Nafalski, Andrew (3)

1: Kanazawa University, Japan; 2: Lublin University of Technology, Poland; 3: University of South Australia, Australia

PB12.10 (ID 566)

Design of Photonic Crystal with Silicon Nitride Media for Light Confinement in Infrared Detector

Lou, Jianyong; Jiao, Fangjun; Ding, Wen; Liang, dlliang; Dang, Fei

Xi'an Jiaotong University, China, Peoples Republic of

Thursday 14 July 2011

Session OC1: Material Modelling

09:00-10:00 Bayside Auditorium A

OC1.1 (ID 602)

3D-2D Coupled Model for Eddy Currents in Laminated Iron Cores

Vanaverbeke, Siegfried (1); De Gersem, Herbert (1); Samaey, Giovanni (2)

1: Katholieke Universiteit Leuven, Wave Propagation and Signal Processing Research Group; 2: Katholieke Universiteit Leuven, Department of Computer Science and Applied Mathematics

OC1.2 (ID 114)

Measurement and Modelling of 2D Magnetostriction of Non-Oriented Electrical Steel

Moses, Anthony John; Somkun, Sakda; Anderson, Philip

Cardiff University, United Kingdom

Session PC1: Numerical Techniques (IV)

10:00-11:00 – Bayside Gallery

PC1.1 (ID 516)

Efficient Implementation of Gaussian Belief Propagation Solver for Large Sparse Diagonally Dominant Linear Systems

El-Kurdi, Yousef; Gross, Warren J.; Giannacopoulos, Dennis D.

McGill University, Canada

PC1.2 (ID 524)

Mesh Quality Investigation to Improve Convergence Property of ICCG Method for Finite Element Method

Takada, Atsushi; Noguchi, So; Igarashi, Hajime

Hokkaido University, Japan

PC1.3 (ID 525)

A New Acceleration Factor Decision Method for ICCG method Utilizing Quality of Finite Element Mesh

Takada, Atsushi; Noguchi, So; Igarashi, Hajime

Hokkaido University, Japan

PC1.4 (ID 529)

Finite Element Modeling and Analyzing for Lumbar Muscle Electrical Activity

Yin, Ning (1); Xu, Guizhi (1); Hu, Yong (2); Zhang Shuai (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: University of Hong Kong

PC1.5 (ID 530)

Adaptive Mesh Generation Method Utilizing Magnetic Flux Lines in Two-Dimensional Finite Element Analysis

Matsutomo, Shinya (1); Noguchi, So (2); Yamashita, Hideo (3)

1: Niihama National College of Technology, Japan; 2: Graduate School of Information Science and Technology, Hokkaido Univ., Japan; 3: Graduate School of Engineering, Hiroshima Institute of Technology, Japan

PC1.6 (ID 554)

Stable Evaluation of Influence Coefficients for Three-Dimensional Extended Boundary-Node Method

Itoh, Taku (1); Saitoh, Ayumu (2); Kamitani, Atsushi (3)

1: Seikei University, Japan; 2: University of Hyogo, Japan; 3: Yamagata University, Japan

PC1.7 (ID 559)

Experimental Analysis of Demagnetization in Magnetic Materials by Using Preisach Model with M-B Variables

Won, Hyuk (1); Park, Hun-Soo (2); Lee, Hyang-Beom (2); Chung, Hyun Ju (3); Yang, Chang Seob (3); Park, Sungkyung (1); Park, Gwan Soo (1)

1: Pusan National University, Korea, South (Republic of); 2: Soongsil University, Korea, South (Republic of); 3: Agency for Defense Development, Korea, South (Republic of)

PC1.8 (ID 561)

Design of a Linear Electromagnetic Actuator Based on Finite Element Modeling

Flores Filho, Aly Ferreira (1); Eckert, Paulo Roberto (1); Silveira, Marilia Amaral da (2); Rinaldi, Wagner (3)

1: Federal University of Rio Grande do Sul, Brazil; 2: Lutheran University of Brazil, Brazil; 3: State Company of Electrical Energy, Brazil

PC1.9 (ID 591)

Research on the Influence of the Ground Wire on Ionized Field of Double-circuit HVDC Transmission Lines

Huang, Guodong; Ruan, Jiangjun; Du, Zhiye; Zhao, Changwei
Wuhan University, China, Peoples Republic of

PC1.10 (ID 592)

Highly Stable Upwind FEM for Solving Ionized Field of HVDC Transmission Line

Huang, Guodong; Ruan, Jiangjun; Du, Zhiye; Zhao, Changwei
Wuhan University, China, Peoples Republic of

PC1.11 (ID 593)

A Stochastic Collocation Method Combined with a Reduced Basis Method to Compute Uncertainties in Numerical Dosimetry

Drissaoui, Mohammed Amine (1); Musy, François (2); Nicolas, Laurent (1); Perrussel, Ronan (1); Voyer, Damien (1)

1: Laboratoire Ampère (CNRS UMR 5005), France; 2: Institut Camille Jordan (CNRS UMR 5208), France

PC1.12 (ID 594)

The Nonconforming Point Interpolation Method Applied to Electromagnetic Problems

Lima, Naísses Zoia (1); Mesquita, Renato Cardoso (1); Facco, Werley Gomes (2); Moura, Alex Sander (2); Silva, Elson José (1)

1: Universidade Federal de Minas Gerais, Brazil; 2: Universidade Federal dos Vales do Jequitinhonha e Mucuri, Brazil

PC1.13 (ID 598)

A Recursive Sparsification of the Inverse Hodge Matrix

Moura, Alex Sander (1); Saldanha, Rodney Rezende (2); Silva, Elson José (2); Lisboa, Adriano Chaves (2); Facco, Werley Gomes (1); Lima, Naísses Zóia (2)

1: Universidade Federal dos Vales do Jequitinhonha e Mucuri, Brazil; 2: Universidade Federal de Minas Gerais, Brazil

PC1.14 (ID 601)

A Generalized Universal Matrix Approach for Continuously Inhomogeneous and Curved Finite Elements

Ansari Oghol Beig, Davood; Wang, Jue; Peng, Zhen; Lee, Jin-Fa
Ohio State University, United States of America

PC1.15 (ID 640)

Local Approximation Based Material Averaging Approach in the Finite Integration Technique

Classen, Christoph; Bandlow, Bastian; Schuhmann, Rolf
University of Paderborn, Germany

Session PC2: Electrical Machines and Drives (VII)

10:00-11:00 – Bayside Gallery

PC2.1 (ID 641)

A Parameterized Mesh Generation and Refinement Method for Finite Element Parameter Sweeping Analysis of Electromagnetic Devices

Zhao, Yanpu (1); Niu, Shuangxia (1); Ho, S. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: The Hong Kong Polytechnic University, China, Peoples Republic of; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

PC2.2 (ID 644)

Study of Unbalanced Voltage on Rotor Classes of Induction Motor according to the NEMA standard

Ruangsinchaiwanich, Somporn; Kraikitrat, Kreansuk
Naresuan University, Thailand

PC2.3 (ID 648)

Analysis of Electromagnetic Forces in Skewed Electric Drives in the Full Operating Range

Boesing, Matthias; Schniedertoens, Thomas; De Doncker, Rik W.
RWTH Aachen University, Germany

PC2.4 (ID 662)

Finite-Element Supported Transmission-Line Models for Calculating High-Frequency Effects in Machine Windings

De Gersem, Herbert (1); Muetze, Annette (2)

1: Katholieke Universiteit Leuven, Belgium; 2: Graz University of Technology, Austria

PC2.5 (ID 666)

3D Modeling and Optimization of a C-Shape Permanent Magnet Synchronous Generator for Wind Power Plants

Ramdane, Brahim; Fouladgar, Javad; Trichet, Didier; Zaim, Mohammed El Hadi
IREENA, France

PC2.6 (ID 675)

Optimum Design Solution for Maximum Torque Density & Minimum Torque Ripple of Flux Switching Motor using Response Surface Methodology

Lee, Jung Ho; Lee, Byeong Du; Song, Hang Sang

Hanbat National University, Korea, South (Republic of)

PC2.7 (ID 676)

Experimental Verification and Finite Element Analysis of Short-Circuit Electromagnetic Force for Dry-Type Transformer

Ahn, Hyun-Mo (1); Oh, Yeon-Ho (2); Son, Ju-Wan (1); Hahn, Sung-Chin (1)

1: Dong-A University, Korea, South (Republic of); 2: Korea Electrotechnology Research Institute, Korea, South (Republic of)

PC2.8 (ID 683)

Method for Evaluating the Eddy Current Loss of a Permanent Magnet in Surface PM Motor Using Coupled 2-D and 3-D Finite Element Analyses

Okitsu, Takashi (1); Matsushashi, Daiki (1); Gao, Yanhui (2); Muramatsu, Kazuhiro (2)

1: New Product Development Group, Meidensha Corp., Tokyo, Japan; 2: Dept. of Electrical and Electronic Engineering, Saga Univ., Saga, Japan

PC2.9 (ID 687)

Magnetization Characteristics Analysis in a Pole Changing Memory Motor using FEM & Preisach Modeling

Lee, Jung Ho; Lee, Seung Chul; Kim, Hun Young

Hanbat National University, Korea, South (Republic of)

PC2.10 (ID 689)

Optimum Design Criteria of 250 kW Premium Efficiency Traction Induction Motor Using RSM & FEM

Jang, Soon Myung; Lee, Jung Ho; Lee, Byeong Du

Hanbat National University, Korea, South (Republic of)

PC2.11 (ID 691)

PM Magnetization Characteristics Analysis of a Post-Assembly Line Start Permanent Magnet Motor Using Coupled Preisach Modeling and FEM

Lee, Jung Ho; Kim, Kyoung Hoon; Lee, Seung Chul

Hanbat National University, Korea, South (Republic of)

PC2.12 (ID 692)

Optimum Shape Design of Single-sided Linear Induction Motor Using Response Surface Method and Finite Element Method

Jang, Soon Myung; Lee, Seung Chul; Lee, Jung Ho

Hanbat National University, Korea, South (Republic of)

PC2.13 (ID 693)

A Novel Stator Design of Synchronous Reluctance Motor by Loss & Torque Evaluations Related to Slot Numbers using Coupled Preisach Model & FEM

Lee, Jung Ho; Kim, Kyoung Hoon; Lee, Seung Chul

Hanbat National University, Korea, South (Republic of)

PC2.14 (ID 694)

Optimum Design Criteria for Maximum Torque Density & Efficiency of a Line-Start Permanent-Magnet Motor using Response Surface Methodology & Finite Element Method

Lee, Jung Ho; Kim, Hun Young; Lee, Byeong Du

Hanbat National University, Korea, South (Republic of)

PC2.15 (ID 695)

Characteristic Analysis & Optimum Design of Permanent Magnet Assisted Synchronous Reluctance Motor Standard Evaluation

Lee, Jung Ho; Jun, Myung Jin; Lee, Byeong Do

Hanbat National University, Korea, South (Republic of)

Session PC3: Static Fields and Quasi-Static Fields (IV)

10:00-11:00 – Bayside Gallery

PC3.1 (ID 377)

Numerical Analysis of 3D Eddy Current Fields in Laminated Media under Various Frequencies

Wang, Jian (1,2); Lin, Heyun (1); Huang, Yunkai (1)

1: Southeast University, China, Peoples Republic of; 2: Nanjing Institute of Technology, China, Peoples Republic of

PC3.2 (ID 401)

Analysis of Transient Electric Field and Charge Density of Converter Transformer under Polarity Reversal Voltage

Liu, Gang (1); Li, Lin (1); Ji, Feng (1); Li, Wenping (2); Sun, Youliang (2); Li, Bo (3); Li, Jinzhong (3)

1: North China Electric Power University, China, Peoples Republic of; 2: R&D Centre of Baoding Tianwei Group, Peoples Republic of; 3: China Electric Power Research Institute, Peoples Republic of

PC3.3 (ID 402)

Study of Electric Field Distribution in Deep Brain Stimulation

Dong, Guoya; Han, Tingyan; Lv, Dianli; Zhang, Shuai; Xu, Guizhi; Yan, Weili

Hebei University of Technology, China, Peoples Republic of

PC3.4 (ID 411)

Simulations of Stent Artifacts in Magnetic Resonance Imaging

Guo, Yan; Jiang, Xiaohua

Department of Electrical Engineering, Tsinghua University, Peoples Republic of China

PC3.5 (ID 414)

Computation of a 3-D model for Lung Imaging with Electrical Impedance Tomography

Shuai, Zhang; Guizhi, Xu; Hongbin, Wang; Xueying, Zhang; Guoya, Dong; Weili, Yan

Hebei University of Technology, China, Peoples Republic of

PC3.6 (ID 419)

Magnetic Field Evaluation at Vertex by Boundary Integral Equation Derived from Scalar Potential of Double Layer Charge

Ishibashi, Kazuhisa (1); Andjelic, Zoran (1); Takahashi, Yasuhito (2); Takamatsu, Tomoaki (3);

Fukuzumi, Tetsuo (3); Wakao, Shinji (3); Fujiwara, Koji (3); Ishihara, Yoshiyuki (3)

1: ABB Switzerland Ltd, Switzerland; 2: Doshisha University; 3: Waseda University

PC3.7 (ID 422)

Some Treatments of Fictitious Volume Charges in Nonlinear Magnetostatic Analysis by BEM

Ishibashi, Kazuhisa (1); Andjelic, Zoran (1); Takahashi, Yasuhito (2); Takamatsu, Tomoaki (3); K. Tsuzaki, Kenta (3); Wakao, Shinji (3); Fujiwara, Koji (2); Ishihara, Yoshiyuki (2)

1: ABB Switzerland Ltd, Switzerland; 2: Doshisha University; 3: Waseda University

PC3.8 (ID 443)

A Three Dimensional Electromagnetic Shell Finite Element for Coupled Vector-Scalar Potential Formulations

Thomas, Pierre (1); Le Menach, Yvonnick (2)

1: LAMEL Laboratoire d'Analyse des Matériels Electriques, Electricite de France; 2: LAMEL Laboratoire d'Analyse des Matériels Electriques, Universite Lille1 L2EP

PC3.9 (ID 453)

Proper Generalized Decomposition Method to Solve Quasi Static Field Problems

Henneron, Thomas (1); Clénet, Stéphane (2)

1: Universite Lille 1, France; 2: Arts et Métiers ParisTech Lille, L2ep, France

PC3.10 (ID 454)

Comparison of Residual and Equilibrated Error Estimators for FEM Applied to Magnetostatic Problems

Tang, Zuqi (1); Le Menach, Yvonnick (1); Creusé, Emmanuel (1); Nicaise, Serge (2); Piriou, Francis (1); Nemitz, Nicolas (3)

1: Université Lille 1, France; 2: Université de Valenciennes; 3: EDF-R&D

PC3.11 (ID 467)

Mortar Method using Bi-orthogonal Functions Applied to Magnetodynamic Potential Formulation

Henneron, Thomas (1); Aubertin, Mathieu (2); Piriou, François (1); Mipo, Jean-Claude (2)

1: Universite Lille 1, L2ep, France; 2: Valeo Systèmes Electriques

PC3.12 (ID 488)

Time-Domain Modeling of Saturation in Conformal Mapping Approach for Permanent Magnet Synchronous Machines

Hafner, Martin; Franck, David; Hameyer, Kay

Institute of Electrical Machines, Germany

PC3.13 (ID 527)

A Local Discontinuous Galerkin Method for Eddy Current Field Analysis in High-speed Moving Conductors

Zhao, Yanpu; Zhang, Xiu; Ho, S. L.; Fu, W. N

The Hong Kong Polytechnic University, China, Peoples Republic of

PC3.14 (ID 537)

Torque Analysis of a Radial Flux Air-Cored Permanent Magnet Machine with a Double-Sided Rotor and Non-Overlapping Windings

Randewijk, Peter Jan

Stellenbosch University, South Africa

PC3.15 (ID 547)

Eddy Currents and Corner Singularities

Buret, François (1); Dauge, Monique (2); Dular, Patrick (3); Krähenbühl, Laurent (1); Péron, Victor (4); Perrussel, Ronan (1); Poignard, Clair (5); Voyer, Damien (1)

1: Laboratoire Ampère (CNRS UMR5005); 2: IRMAR (CNRS UMR6625); 3: F.R.S.-FNRS; 4: LMAP (CNRS UMR5142); 5: INRIA Bordeaux-Sud-Ouest

Session PC4: Coupled Problems (I)

11:30-12:30 – Bayside Gallery

PC4.1 (ID 102)

Equivalent Formulas for Global Magnetic Force Calculation from Finite Element Solution

Demenko, Andrzej

Poznan University of Technology, Poland

PC4.2 (ID 145)

The Cooling Analysis of Large Asynchronous Motor Based on Coupled Calculation of Electromagnetic, Fluid and Thermal Field

Zhang, Yujiao

Wuhan University, China, China, Peoples Republic of

PC4.3 (ID 147)

Electromagnetic Vibration Analysis of a Magnetic Gear Employing the 3-D Finite Element Method

Niguchi, Noboru; Hirata, Katsuhiro

Osaka University, Japan

PC4.4 (ID 172)

Boundary Element Solution of Electromagnetic and Bioheat Equations for the Simulation of SAR and Temperature Increase in Biological Tissues

Bottauscio, Oriano (1); Chiampi, Mario (2); Zilberti, Luca (1)

1: Istituto Nazionale di Ricerca Metrologica, Italy; 2: Politecnico di Torino, Dip. Ingegneria Elettrica, Italy

PC4.5 (ID 178)

Coupled Multi-physical Fields Calculations and Analysis of Asynchronous Motor with Axial Ventilation

Zhang, Yujiao

Wuhan University, China, Peoples Republic of

PC4.6 (ID 182)

A Cell Method Formulation of Three Dimensional Electro-Thermo-Mechanical Contact Problems with Mortar Discretization

Moro, Federico (1); Alotto, Piergiorgio (1); Freschi, Fabio (2); Guarnieri, Massimo (1)

1: Dipartimento di Ingegneria Elettrica, Università di Padova, Italy; 2: Dipartimento di Ingegneria Elettrica, Politecnico di Torino, Italy

PC4.7 (ID 187)

Numerical Analysis of Sampling Streak Camera for Higher Temporal Resolution Operation

Kawaguchi, Hideki (1); Ito, Yoshihiro (2)

1: Muroran Institute of Technology, Japan; 2: Yuge National College for Maritime Technology

PC4.8 (ID 190)

Numerical Analysis of the Amplification Process of the Micro Channel Plate (MCP) in the Framing Camera

Yoshihiro (1); Kawaguchi, Hideki (2); Gjonaj, Erion (3); Weiland, Thomas (3)

1: Yuge National College of Maritime Technology, Japan; 2: Muroran Institute of Technology; 3: Technische Universitaet Darmstadt

PC4.9 (ID 221)

Integrated Study and Optimization of HTS SMES Based on Circuit and Magnetic Field Analysis
Chen, Xiao-Yuan (1); Jin, Jian-Xun (1); Xin, Ying (2); Zhu, Jian-Guo (3); Guo, You-Guang (3)
 1: University of Electronic Science and Technology of China, China, Peoples Republic of; 2: Innopower Superconductor Cable Co., Ltd, China, Peoples Republic of; 3: University of Technology Sydney, Australia

PC4.10 (ID 244)

Comparison between Pseudospectral and Discrete Geometric Methods for Modelling Quantization Effects in Nanoscale Electron Devices
Trevisan, Francesco (1); Specogna, Ruben (1); Breda, Dimitri (2); Esseni, David (1); Paussa, Alan (1); Vermiglio, Rossana (2)
 1: Universita' di Udine, Italy, Dipartimento di Ingegneria Elettrica, Gestionale e Meccanica; 2: Universita' di Udine, Italy, Dipartimento di Matematica e Informatica

PC4.11 (ID 268)

Cathodic Current Density Distribution Modeling in Proton Exchange Membrane Fuel Cells
Trevisan, Francesco (1); Moro, Federico (2); Specogna, Ruben (1); Stella, Andrea (2)
 1: Universita' di Udine, Italy, Dipartimento di Ingegneria Elettrica, Gestionale e Meccanica; 2: Universita' di Padova, Italy, Dipartimento di Ingegneria Elettrica

PC4.12 (ID 275)

Discontinuous Galerkin Method for 2D Simulations of Streamer Discharges in Nitrogen
Zhuang, Chijie; Zeng, Rong; Zhang, Bo
 Tsinghua University, China, Peoples Republic of

PC4.13 (ID 285)

Numerical Simulation of Onset Conditions for Corona Discharges on Stranded Conductors
Zheng, Yuesheng; He, Jinliang; Zhang, Bo; Zeng, Rong
 Tsinghua University, China, Peoples Republic of

PC4.14 (ID 329)

Coupled Numerical Simulation between Electromagnetic and Structural Models: Influence of the Supply Harmonics for Synvchronous Machines Vibrations
Pellerey, Pierre; Lanfranchi, Vincent; Friedrich, Guy
 UTC, France

PC4.15 (ID 336)

Numerical Method to Solve Problems of Electromagnetic Forming of Thin Flat Plates in Matlab
Paese, Evandro (1); Homrich, Roberto (1); Geier, Martin (2); Pacheco, Joyson (2)
 1: Delet Ufrgs, Brazil; 2: Promec Ufrgs, Brazil

Session PC5: Numerical Techniques (V)

11:30-12:30 – Bayside Gallery

PC5.2 (ID 653)

Method for Determining Relaxation Factor for Modified Newton-Raphson Method for Non-linear Systems
Rodriguez, Eric (2); Pelissier, Valene (1); Meunier, Gerard (3)
 1: NAG ltd, UK; 2: Cedrat, France; 3: G2Elab, France

PC5.3 (ID 661)

Optimization of Electrostatic Devices Thanks to a Hybrid BEM/FMM Method

Guibert, Arnaud (1); Lebensztajn, Luiz (1); Chadebec, Olivier (2); Coulomb, Jean-Louis (2)

1: LMAG, Brazil; 2: G2ELab, France

PC5.4 (ID 664)

Numerical Design of an Optical Cavity with Plasmonic Diffraction Grating

Alves, Savio; Orlando, Alberto

ITA - Instituto Tecnológico de Aeronautica, Brazil

PC5.5 (ID 668)

Induction Machines Modeling with Meshless Methods

Coppoli, Eduardo Henrique Da Rocha (1); Mesquita, Renato Cardoso (2); Silva, Renato Simões (3)

1: Centro Federal De Educação Tecnológica De Minas Gerais, Brazil; 2: Universidade Federal De Minas Gerais, Brazil; 3: Laboratório Nacional De Computação Científica, Brazil

PC5.6 (ID 679)

A Study of Preisach Model for Improving Numerical Stabilities by Using M-B Variables

Won, Hyuk (1); Chun, Hyun Ju (2); Yang, Chang Seob (2); Park, Gwan Soo (1)

1: Pusan National University, Korea, South (Republic of); 2: Agency for Defense Development, Korea, Sout (Republic of)

PC5.7 (ID 684)

Analysis of Printed Rotor Winding DC Motor with Analytical and 3D Finite Element Method

Hong, Sun-Ki; Kim, Bum-Hoon

Hoseo University, Korea, South (Republic of)

PC5.8 (ID 685)

On Error Correction Methods for Acceleration of Convergence

Igarashi, H.; Watanabe, Y.; Watanabe, K.

Hokkaido University, Japan

PC5.9 (ID 696)

Orthogonalized Infinite Edge Element Method –Convergence Improvement by Orthogonalization of Hilbert Matrix in Infinite Edge Element Method

Wakao, Shinji (1); Tamitani, Satoshi (1); Tsuzaki, Kenta (1); Tokumasu, Tadashi (2); Takahashi, Yasuhito (3); Kameari, Akihisa (4); Igarashi, Hajime (5); Fujiwara, Koji (3); Ishihara, Yoshiyuki (3)

1: Waseda University, Japan; 2: Toshiba Corporation Power Systems Company, Japan; 3: Doshisha University, Japan; 4: Science Solutions International Laboratory, Japan; 5: Hokkaido University, Japan

PC5.10 (ID 700)

Effects of a Remanent Magnetization on the Detection Signals of the Metal Loss in MFL type NDT by using M-B Variable Preisach Model

Won, Hyuk (1); Seo, Kang (2); Yun, Seung ho (1); Park, Gwan Soo (1)

1: Pusan National University, Korea, South (Republic of); 2: Hyosung Corportation, Korea, South (Republic of)

PC5.11 (ID 704)

Voxel Based Finite Element Method Using Homogenization

Watanabe, Kota (1); Iijima, Yosuke (2); Kawano, Kenji (2); Igarashi, Hajime (1)

1: Hokkaido University, Japan; 2: Taiyo Yuden Co., Ltd.

PC5.12 (ID 709)

Contact Parameter Computation and Analysis of Air Circuit Breaker with Permanent Magnet Actuator

Fang, Shuhua (1); Lin, Heyun (1); Ho, S. L. (2); Wang, Xianbing (1); Jin, Ping (1)

1: Southeast University, Peoples Republic of China; 2: Hong Kong Polytechnic University, Kowloon, Hong Kong

PC5.13 (ID 713)

Application of Extended Element-Free Galerkin Method to Nonlinear Problem

Saitoh, Ayumu (1); Itoh, Taku (2); Matsui, Nobuyuki (1); Kamitani, Atsushi (3)

1: Graduate School of Engineering, University of Hyogo; 2: Faculty of Science and Technology, Seikei University; 3: Graduate School of Science and Engineering, Yamagata University

PC5.14 (ID 717)

Large-scale Parallel Magnetic Analysis using Hierarchical Domain Decomposition Tool with Refine Function

Sugimoto, Shin-Ichiro; Murotani, Kohei; Kawai, Hiroshi; Yoshimura, Shinobu

The University of Tokyo, Japan

PC5.15 (ID 719)

Analysis of Uniform Magnetic Field Problem by Edge Elements – Effects of Reduced Integration and High Order Elements

Okamoto, Yoshifumi (1); Takahashi, Yasuhito (2); Fujiwara, Koji (2); Ahagon, Akira (3); Kameari, Akihisa (3); Ikeda, Fumiaki (4); Sato, Shuji (1)

1: Utsunomiya University, Japan; 2: Doshisha University, Japan; 3: Science Solutions International Laboratory, Inc., Japan; 4: Photon, Inc., Japan

Session PC6: Electric Machines and Drives (VIII)

11:30-12:30 – Bayside Gallery

PC6.1 (ID 697)

Optimum LIM Interval Selection of Vector Controlled Moving Secondary Plate Conveyor System Using FEM & SUMT for Constant Speed Control

Lee, Jung Ho; Jun, Myung Jin; Lee, Byeong Do

Hanbat National University, Korea, South (Republic of)

PC6.2 (ID 701)

Initial Design and Dynamic Performance of Linear Switched Reluctance Motor with Design Range considering Continuous Thrust Generation and Saturation according to Design Factor

Park, Ji-hoon; Jang, Seok-myeong; Park, Yu-seop; Choi, Jang-young

Chungnam National University, Korea, South (Republic of)

PC6.3 (ID 703)

Development of Lumped-Parameter Thermal Model for Axial Flux Permanent Magnet Synchronous Machine

Li, Jian; Choi, Da-Woon; Cho, Yun-Hyun

Dong-A University, Korea, South (Republic of)

PC6.4 (ID 706)

Thrust Performance Analysis of a Flux-switching Permanent Magnet Linear Motor for Electromagnetic Launch Systems

Huang, Lei; Yu, Haitao; Hu, Minqiang; Zhao, Jing
Southeast University, China, Peoples Republic of

PC6.6 (ID 711)

A Sensitivity Analysis Method for Equivalent Parameter Extraction of Transient Magnetic Field Problems with Internal Coupled Circuits

Ho, S. L. (1); Niu, Shuangxia (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: Department of Electrical Engineering, The Hong Kong Polytechnic University, Kowloon, Hong Kong; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

PC6.7 (ID 723)

Eddy Current Calculation of Solid Components in Fractional Slot Axial Flux Permanent Magnet Synchronous Machines

Li, Jian; Choi, Da-Woon; Cho, Yun-Hyun
Dong-A University, Korea, South (Republic of)

PC6.8 (ID 727)

Analysis of Torque Pulsation considering Interior Permanent Magnet Rotor Rib Shape using Response Surface Methodology

Jang, Seok-Myeong (1); Hwang, Seon-Ik (1); Im, Young-Hun (1); Choi, Jang-Young (1); Lee, Sung-Ho (2)

1: Chungnam National University, Korea, South (Republic of); 2: Korea Institute of Industrial Technology Gwangju Research Center

PC6.9 (ID 731)

Analysis on Eddy Current Losses of Permanent Magnet Synchronous Motor with Double Sleeves Rotor using Electromagnetic Field Theory

Jang, Seok-Myeong (1); Ahn, Ji-hun (1); Ko, Kyoung-Jin (1); Choi, Jang-Young (1); Lee, Yong-Bok (2)

1: Chungnam national university, Korea, South (Republic of); 2: Korean Institute of Science and Technology

PC6.10 (ID 735)

Analysis of Torque Performance A High Speed PM Synchronous Motor using v/f Control with Current Angle Tracing Concepts

Jang, Seok-Myeong (1); Ahn, Ji-hun (1); Ko, Kyoung-Jin (1); Choi, Jang-Young (1); Lee, Sung-Ho (2)

1: Chungnam National University, Korea, South (Republic of); 2: Korea Institute of Industrial Technology Gwangju Research Center

PC6.11 (ID 736)

Comparative Analysis on Axial Flux Machine with Halbach/Vertical Magnetized PM for Wind Power Generator by Flux Leakage Computation

Jang, Seok-Myeong (1); Park, Yu-Seop (1); Choi, Jang-Young (1); Ko, Kyoung-Jin (1); You, Dae-Joon (2); Park, Young-Tae (3)

1: Chungnam National University, Korea, South (Republic of); 2: Cheongyang Provincial College, Korea, South (Republic of); 3: Korea Research Institute of Standards and Science, Korea, South (Republic of)

PC6.12 (ID 737)

A Study of Asymmetric Magnetic Field for Surfaced Permanent Magnet Spherical Motor

Lee, Ho Joon (1); Kang, Dong Woo (1); Won, Sung Hong (2); Lee, Ju (1)

1: Hanyang University, South Korea, Korea, South (Republic of); 2: Dongyang Technical college, Seoul, South Korea

PC6.13 (ID 738)

Characteristic Analysis of Induction Motor with Eccentricity and Broken Rotor bar by Finite Element Method and Motor Current Signal Analysis

Jang, Seok-Myeong (1); Park, Yu-Seop (1); Choi, Jang-Young (1); You, Dae-Joon (2); Goo, Cheol-Soo (3)

1: Chungnam National University, Korea, South (Republic of); 2: Cheongyang Provincial College, Korea, South (Republic of); 3: Korea Institute of Nuclear Safety, Korea, South (Republic of)

PC6.14 (ID 739)

Approximate Optimization Design of High Power LSM for Thrust Force Ripple Reduction using Kriging Method

Ryu, Gwang-Hyeon (1); Ham, Sang-Hwan (1); Cho, Su-Yeon (1); Lee, Hyung-Woo (2); Lee, Ju (1)

1: Hanyang University, Korea, South (Republic of); 2: High-Speed Rail Eng. Corps, Korea Railroad Research Institute

PC6.15 (ID 744)

Characteristic Analysis and Efficiency Improvement of Linear Induction Motor considering Design Specification

Jang, Seok-Myeong (1); Kim, Jeong-Man (1); Park, Yu-Seop (1); Ko, Kyoung-Jin (1); Choi, Jang-Young (1); Cho, Han-Wook (2)

1: Electrical Engineering, Chungnam National University, Korea, South (Republic of); 2: Electric, Electronic & Communication Engineering Education, Chungnam National University, Korea, South (Republic of)

Session OC2: Numerical Techniques II

13:30-14:30 Bayside Auditorium A

OC2.1 (ID 805)

A Low-Frequency Approximation to the Maxwell Equations Simultaneously Considering Inductive and Capacitive Phenomena

Koch, Stephan; Schneider, Hermann; Weiland, Thomas

Technische Universitaet Darmstadt, Germany

OC2.2 (ID 564)

Time-Domain Surface Impedance Boundary Conditions Enhanced by Coarse Volume Finite-Element Discretisation

Sabariego, Ruth V. (1); Geuzaine, Christophe (1); Dular, Patrick (1); Gyselinck, Johan (2)

1: University of Liège, Belgium; 2: Université Libre de Bruxelles (ULB), Belgium

Session PC7: Static Fields and Quasi-Static Fields (V)

14:30-15:30 – Bayside Gallery

PC7.1 (ID 549)

2D Electrostatic Problems with Rounded Corners

Buret, François (1); Dauge, Monique (2); Dular, Patrick (3); Krähenbühl, Laurent (1); Péron, Victor (4); Perrussel, Ronan (1); Poignard, Clair (5); Voyer, Damien (1)

1: Laboratoire Ampère (CNRS UMR5005); 2: IRMAR (CNRS UMR6625); 3: F.R.S.-FNRS; 4: LMAP (CNRS UMR5142); 5: INRIA Bordeaux-Sud-Ouest

PC7.2 (ID 552)

Low Order Electro-Quasistatic Field Simulations Based on Proper Orthogonal Decomposition

Schmidthäusler, Daniel; Clemens, Markus

Bergische Universität Wuppertal, Germany

PC7.3 (ID 557)

Multislice Analytical Model of Axial Flux PM Machines

Tiegna, Huguette; Amara, Yacine; Barakat, Georges

GREAH (University of Le Havre), France

PC7.5 (ID 569)

Hybridizing Network Reluctance and Boundary Integral Methods: Comparisons on an E-core Actuator

Delinchant, Benoit (1); Coulomb, Jean-Louis (1); Chadebec, Olivier (1); Vrijsen, Nilles (2); Jansen, J.W. (2); Lomonova, Elena (2)

1: G2ELab Grenoble University, France; 2: Eindhoven University of Technology

PC7.6 (ID 572)

Physics Based Modeling of Power Converters from Finite Element Electromagnetic Field Computations

Nejadpak, Arash; Mohammed, Osama

Florida International University, United States of America

PC7.7 (ID 587)

A Fast and Robust BEM-FEM Coupling for Magnetostatics on Non-simply Connected Domains

Kielhorn, Lars; Pusch, David; Ostrowski, Joerg

ABB Switzerland Ltd. Corporate Research, Switzerland

PC7.9 (ID 612)

Identification of Brain Activity by Stochastic Algorithms

Di Barba, Paolo (1); Freschi, Fabio (2); Maria Evelina, Mognaschi (1); Fulvia, Palesi (3); Anna, Pichiecchio (3); Maurizio, Repetto (2); Antonio, Savini (1)

1: Politecnico di Torino, Italy; 2: Università di Pavia, Italy; 3: I.R.C.C.S. Neurological Institute "C. Mondino", Italy

PC7.10 (ID 626)

Discontinuous Galerkin Method for Computing Induced Fields in Superconducting Materials

Kameni, Abelin (1); Lambrechts, Johanathan (2); Remacle, Jean-François (2); Mezani, Smail (3); Geuzaine, Christophe (1)

1: Université de Liège, Belgium; 2: Université catholique de Louvain, Belgium; 3: Université Henri Poincaré Nancy, France

PC7.11 (ID 628)

Computation of Induced Fields into the Human Body by using Dual Formulations

Scorretti, Riccardo (1); Sabariego, Ruth (2); Morel, Laurent (1); Geuzaine, Christophe (2); Burais, Noel (1); Nicolas, Laurent (1)

1: Laboratoire Ampère, University of Lyon, France; 2: Applied Computational Electromagnetics (ACE), University of Liege, Belgium

PC7.12 (ID 634)

Refinement of Non-Linear Magnetic Models via a Finite Element Subproblem Method

Dular, Patrick (1); Krähenbühl, Laurent (2); Sabariego, Ruth V. (1); Ferreira da Luz, Mauricio V. (3); Kuo-Peng, Patrick (3); Geuzaine, Christophe (1)

1: University of Liege, Belgium; 2: Université de Lyon, France; 3: UFSC, Brazil

PC7.13 (ID 637)

Three-dimensional Quasi-transient Simulation for Electromagnetic Field by Using Current Vector Calculation and Coil Mesh Generation

Kang, Dong-Woo (1); Go, Sung-Chul (1); Won, Sung-Hong (2); Lee, Hyung-Woo (3); Kim, Jae-Hyuck (4); Lee, Ju (1)

1: Hanyang university, Korea, South (Republic of); 2: Dongyang Technical college, Korea, South (Republic of); 3: Korea Railroad Research Institute, Korea, South (Republic of); 4: Wonkwang University, Korea, South (Republic of)

PC7.14 (ID 650)

Hybrid-Mixed Formulation for Static-Current Flow Problem Compared with Conventional Formulation

Rondot, Loic (2); Carpentier, Anthony (1); Perrussel, Ronan (3); Guerin, Christophe (4)

1: Cedrat, France; 2: G2Elab, France; 3: Ampère, France; 4: Cedrat, France

PC7.15 (ID 654)

TWT Beam Transport Design Tools Based on FEM and the Particle Path Approach

Xavier, Cesar Candido (1); Motta, Claudio Costa (2)

1: Instituto de Pesquisas Energéticas e Nucleares/CNEN-SP; 2: University of Sao Paulo, Brazil

Session PC8: Coupled Problems (II)

14:30-15:30 – Bayside Gallery

PC8.1 (ID 337)

A Novel Multiphysics Design Method of High Speed Permanent Magnet Synchronous Machine

Guo, Hong; Li, Yanming; Qian, Hao; Xie, Qingming

Beijing University of Aeronautics and Astronautics, China, Peoples Republic of

PC8.2 (ID 340)

Numerical Modeling of Induction Shrink-Fits in Monolithic Formulation

Karban, Pavel (1); Kotlan, Vaclav (1); Dolezel, Ivo (2)

1: University of West Bohemia, Czech Republic; 2: Czech University of Technology, Czech Republic

PC8.3 (ID 343)

Enhanced Acoustic Emission Technology Induced by Electromagnetic Stimulation with External Magnetic Field

Jin, Liang; Yang, Qingxin; Liu, Suzhen; Zhang, Chuang

Hebei University of Technology, China, Peoples Republic of

PC8.4 (ID 354)

Magnetic Field Gradients and Fluid Flow Computation for Design of Magnetic Chromatography to Separate Magnetic Particles

Noguchi, So (1); Kim, SeokBeom (2)

1: Hokkaido University, Japan; 2: Okayama University, Japan

PC8.5 (ID 360)

3D Quench Simulation of Superconducting Magnets with Adaptive Time-Stepping and Mesh-Generation

Chen, Jiangbo; Jiang, Xiaohua

Tsinghua University, China, Peoples Republic of

PC8.6 (ID 374)

Higher-Order Co-Simulation of Field-Circuit Coupled Eddy-Current Problems

Schöps, Sebastian (1); De Gersem, Herbert (2); Bartel, Andreas (1)

1: Bergische Universität Wuppertal, Germany; 2: Katholieke Universiteit Leuven

PC8.7 (ID 383)

Hard-Coupled Numerical Model of Induction Heating of Thin Profile Plates in External Magnetic Field

Dolezel, Ivo (1); Ulrych, Bohus (2); Barglik, Jerzy (3)

1: Czech Technical University, Faculty of Electrical Engineering, Czech Republic; 2: University of West Bohemia, Faculty of Electrical Engineering, Czech Republic; 3: Silesian University of Technology, Faculty of Material Engineering and Metallurgy, Poland

PC8.8 (ID 394)

Calculation of Thermal Characteristics in Disconnecting Switch by 3-D Coupled Technique

Oh, Yeon-Ho (1); Song, Ki-Dong (1); Kim, H. J. (2); Lim, W. H. (2)

1: KERI, Korea, South (Republic of); 2: Kwang-Myung Electric Co.

PC8.9 (ID 415)

Numerical Simulation for Dielectrophoretic Separation of Micro-Particles in Moving Fluid and Electric Field

Baek, Myung Ki; Park, Il Han

Sungkyunkwan University, Korea, South (Republic of)

PC8.10 (ID 496)

Electro-Mechano-Fluidic Modelling of Microsystems using Finite Elements

Rochus, Véronique (1); Cardona, Alberto (2); Geuzaine, Christophe (3)

1: IMEC, Belgium; 2: UNL, CIMEC-INTEC, Argentina; 3: Université de Liège, Belgium

PC8.11 (ID 497)

An Experimentally Validated 3D Multi-physics Multi-scale Model for Electrical Interconnects

Guarnieri, Massimo (1); Majorana, Carmelo (2); Mazzucco, Gianluca (2); Moro, Federico (1)

1: Università di Padova, Dip. di Ingegneria Elettrica, Italy; 2: Università di Padova, Dip. di Costruzioni e Trasporti, Ital

PC8.12 (ID 504)

3-D Finite Element Analysis of Two-DOF Resonant Actuator under Vector Control

Hirata, Katsuhiro (1); Asai, Yasuyoshi (1); Ota, Tomohiro (2)

1: Osaka University, Japan; 2: Panasonic Electric Works, Ltd.

PC8.13 (ID 538)

Thermal Analysis of Interior Permanent-Magnet Synchronous Motor by Electromagnetic Field – Thermal Linked Analysis

Joo, Daesuk (1,2); Cho, Ju-Hee (1); Woo, Kyungil (2); Kim, Byung-Taek (3); Kim, Dae-Kyong (1)

1: Korea Electronics Technology Institute, Korea, South (Republic of); 2: Pukyong National University; 3: Kunsan National University

PC8.14 (ID 542)

Estimation of Iron Loss of PMSM Used for Deep-sea Electromagnetic Propeller

Li, Jianjun; Xu, Yongxiang; Zou, Jibin

Harbin Institute of Technology, China, Peoples Republic of

PC8.15 (ID 544)

Research on Thermal Characteristics of Submersible Motor Used for Electromagnetic Propeller in Deep-sea Human Occupied Vehicle

Li, Jianjun; Xu, Yongxiang; Zou, Jibin

Harbin Institute of Technology, China, Peoples Republic of

Session PC9: Numerical Techniques (VI)

14:30-15:30 – Bayside Gallery

PC9.1 (ID 770)

Analysis of Multilayer Circuits by an Efficient Iterative Technique

Serres, Alexandre; Fontgalland, Glauco; P. de Farias, José Ewerton; Baudrand, Henri
UFCG, Brazil

PC9.2 (ID 772)

Magnetic Field Analysis with Nonconforming Voxel Modelling Using the Nested Geometric Multigrid Method

Odawara, Shunya; Gao, Yanhui; Muramatsu, Kazuhiro
Saga Univ., Japan

PC9.3 (ID 780)

Construction of a Two-Dimensional Finite Difference Time Domain Method Based on a Simplex Grid

Jiao, Chaoqun (1,2); Xia, Zhanjun (1,2); Gao, Xin (1,2); Ho, S. L. (3); Fu, W. N. (3)

1: Beijing Jiaotong University, China, Peoples Republic of; 2: State Key Laboratory of Millimeter Waves, China, Peoples Republic of; 3: Department of Electrical Eng., The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

PC9.4 (ID 784)

A New Methodology for Early Stage Magnetic Modeling and Simulation of Complex Electronic Systems

Martins, Olivier (1); Guédon, Stéphane (2); Maréchal, Yves (1)

1: Grenoble Electrical Engineering Laboratory (G2Elab), France; 2: Docea Power, France

PC9.5 (ID 787)

An Improvement of Convergence in Finite element Analysis with Infinite Element Using Deflation

Ito, Hiroki; Watanabe, Kota; Igarashi, Hajime

Hokkaido University, Japan

PC9.6 (ID 800)

Analysis of a SPM Motor Model Core Considering Vector Magnetic Property under High Magnetic Flux Density Conditions

Sato, Takeru; Todaka, Takashi; Enokizono, Masato

Oita University, Japan

PC9.7 (ID 803)

Finite Element Analysis by using Three-Dimensional Laminate core Elements

Ishikawa, Seiji; Todaka, Takashi; Enokizono, Masato

Oita University, Japan

PC9.8 (ID 822)

Use of Overlapping Finite Elements for Connecting Arbitrary Surfaces with Dual Formulations

Zaidi, Houda; Santandrea, Laurent; Krebs, Guillaume; Le Bihan, Yann

LGEP, France

PC9.9 (ID 838)

A Parallel Algebraic Multigrid through Lifting Technique, with Application in Circuit Simulation Matrices

Pereira, Fabio Henrique (1); Nabeta, Silvio (2)

1: Nove de Julho University, UNINOVE, Brazil; 2: São Paulo University, USP, Brazil

PC9.10 (ID 846)

2D Mesh Generator for Electromagnetic Fields Simulation

Firmino, Luciana; Baldini, Mario

GEMCO, Brazil

PC9.11 (ID 853)

The Broad Sense Chain-Making and Chain-Coupling Theorems of Element Grid in 2-D Problems

Xiong, Nan

Institute of Electrical Engineering, Chinese Academy of Sciences, China, Peoples Republic of

PC9.12 (ID 854)

A Finite-Element Variable Time-Stepping Algorithm for the Solution of the Electromagnetic Diffusion Equation

Ovando Martinez, Roberto B B; Arjona Lopez, Marco A; Hernandez Flores, Concepcion

Instituto Tecnológico de la Laguna, Mexico

PC9.13 (ID 864)

Time Domain Approach of the Ion Flow Field of Bipolar HVDC Transmission Lines

Yin, Han (1); Zhang, Bo (1); He, Jinliang (1); Zeng, Rong (1); Li, Ruihai (2); Liu, Lei (2)

1: Tsinghua University, China, Peoples Republic of; 2: Electric Power Research Institute, China Southern Power Grid, China, Peoples Republic of

PC9.14 (ID 873)

Two-scale FEM for the Linear Eddy Current Problem in 3D

Hollaus, Karl; Schöberl, Joachim

Vienna University of Technology, Austria

Session PC10: Electric Machines and Drives (IX)

16:00-17:00 – Bayside Gallery

PC10.1 (ID 745)

Design Algorithm of Barriers and Magnets in the Rotor for LSPM Motor

Kim, Won-Ho; Kim, Kwang-Soo; Jang, Ik-Sang; Lee, Jae-Jun; Lee, Ki-Doek; Lee, Ju Hanyang Univ., Korea, South (Republic of)

PC10.2 (ID 746)

Optimum Design of IPMSM for Electric Motorcycle considering High Speed and High Efficiency Operation

Lee, Ki-Doek; Kim, Won-Ho; Jin, Chang-Sung; Jang, Ik-Sang; Kim, Mi-Jung; Lee, Jae-Jun; Lee, Ju

Hanyang University, Korea, South (Republic of)

PC10.3 (ID 747)

Dynamic Characteristic Analysis of Linear Induction Motor for Magnetic Levitation Vehicle Propulsion System considering Operating Condition

Jang, Seok-Myeong (1); Park, Yu-Seop (1); Park, Ji-Hoon (1); You, Dae-Joon (2); Lee, Kyoung-Bok (3); Cho, Han-Wook (4)

1: Electrical Engineering, Chungnam National University, Korea, South (Republic of); 2: Cheongyang Provincial College, Korea, South (Republic of); 3: Daejeon Metropolitan Express Transit Corporation, Korea, South (Republic of); 4: Electric, Electronic & Communication Engineering Education, Chungnam National University, Korea, South (Republic of)

PC10.4 (ID 748)

Current and Speed Characteristic of Linear Induction Motor according to Reference Scenario and Voltage/Frequency Ratio

Jang, Seok-Myeong (1); Kim, Jeong-Man (1); Park, Yu-Seop (1); Ko, Kyoung-Jin (1); You, Dae-Joon (2); Lee, Kyoung-Bok (3)

1: Chungnam National University, Korea, South (Republic of); 2: Cheongyang Provincial College, Korea, South (Republic of); 3: Daejeon Metropolitan Express Transit Corporation, Korea, South (Republic of)

PC10.5 (ID 749)

Analytical Estimation of Acceleration/Deceleration Time in the Flywheel Battery System with Slotless PMSM/G

Choi, Ji-hwan (1); Jang, Seok-Myeong (1); You, Dae-Joon (2); Han, Sang-Chul (3)

1: Chungnam National University, Korea, South (Republic of); 2: Chungnam Provincial Cheongyang College; 3: Korea Electric Power Research Institute

PC10.6 (ID 752)

Characteristics Analysis of Single Phase Induction Motor by Equivalent Circuit Method Considering Saturation Factor

Cho, SuYeon; Ham, SangHwan; Jang, IkSang; Ryu, GwangHyeon; Kim, MiJung; Lee, Ju Hanyang University, Korea, South (Republic of)

PC10.7 (ID 753)

Characteristic Analysis on PMSMs with Three Types of Diametrically Magnetized Rotors under Magnetic Circuit Construction Conditions

Jang, Seok-Myeong (1); Koo, Min-Mo (1); Park, Yu-Seop (1); Choi, Jang-Young (1); Lee, Sung-Ho (2)

1: *Chungnam National University, Korea, South (Republic of)*; 2: *Korea Institute of Industrial Technology, Korea, South (Republic of)*

PC10.8 (ID 755)

A Study on the Simulated Torque Table with Nonlinear Datasets of IPMSM for HEV
Kim, Won-Ho; Jin, Chang-Sung; Jang, Ik-Sang; Kim, Mi-Jung; Lee, Ki-Doek; Lee, Ju
Hanyang Univ., Korea, South (Republic of)

PC10.9 (ID 759)

Optimal Shape Design of Rotor Bar of Three-phase Squirrel Cage Induction Motor for NEMA Design D Torque-speed Characteristics
Koh, C. S. (1); Zhang, Dianhai (1); Li, Wei (1); Park, Chang Soon (2)
1: *Chungbuk National University, Korea, South (Republic of)*; 2: *Korea University of Technology and Education, Korea, South (Republic of)*

PC10.10 (ID 761)

Numerical Investigation on Torque Harmonics Reduction of Interior Permanent Magnet Synchronous with Concentrated Winding
Lee, Seungho; Lee, Dongsu; Kim, Yong-Jae; Jung, Sang-Yong
Dong-A Uni., Korea, South (Republic of)

PC10.11 (ID 762)

Electro-magnetic Losses Calculation and Reduction of High-speed Permanent Magnet Synchronous Motor using Measured Load Current Waveform with Harmonics and 2-D FEM
Jang, Seok-Myeong (1); Han, Cheol (1); Choi, Jang-Young (1); Lee, Yong-Bok (2)
1: *Chungnam national university, Korea, South (Republic of)*; 2: *Korea Institute of Science and Technology, Korea, South (Republic of)*

PC10.12 (ID 764)

Research on the Electromagnetic Performance of an Axial Flux Permanent-Magnet Linear Synchronous Machine
Zheng, Ping; Tong, Chengde; Gan, Xuhui; Sui, Yi; Ke, Wenjing; Yan, Haiyuan
Harbin Institute of Technology, China, Peoples Republic of

PC10.13 (ID 768)

Permanent Magnet Temperature Estimation of IPMSM using Thermal Equivalent Circuit
Lee, Byeong-Hwa (1); Kim, Kyu-Seob (1); Song, Baik-Kee (1); Sun, Tao (1); Hong, Jung-Pyo (1); Kim, Young-Kyoun (2)
1: *Hanyang University, Korea, South (Republic of)*; 2: *Korea Electronics Technology Institute, Korea, South (Republic of)*

PC10.14 (ID 771)

Design Criteria of Active Thrust Magnetic Bearing Using Improved Equivalent Magnetic Circuit Method and Finite Element Method
Jang, Seok-Myeong (1); Kim, Kwan-ho (1); Ko, Kyoung-Jin (1); Choi, Ji-Hwan (1); Sung, So-Young (2); Lee, Yong-Bok (3)
1: *Chungnam National University, Korea, South (Republic of)*; 2: *Korea Ocean Research & Development Institute, Korea, South (Republic of)*; 3: *Korea Institute of Science and Technology, Korea, South (Republic of)*

PC10.15 (ID 776)

Improved Design to Reduce Eddy Current Loss in Retain Ring in Superconducting Machines

*Lee, Sang-Ho; Hong, Jung-Pyo
Hanyang University, Korea, South (Republic of)*

Session PC11: Static Fields and Quasi-Static Fields (VI)

16:00-17:00 – Bayside Gallery

PC11.11 (ID 715)

Numerical Identification of Effective Multipole Moments of Polarizable Particles

Ogbi, Abdellah (1); Nicolas, Laurent (1); Perrussel, Ronan (1); Salon, Sheppard J. (2); Voyer, Damien (1)

1: Laboratoire Ampère (CNRS UMR5005); 2: Rensselaer Polytechnic Institute

PC11.12 (ID 733)

Considering Laminated Cores and Eddy Currents in 2D and 3D FE Simulation of Electrical Machines

Gyselinck, Johan (1); Geuzaine, Christophe (2); Sabariego, Ruth (2)

1: Université Libre de Bruxelles (ULB), Belgium; 2: University of Liège (ULg), Belgium

PC11.13 (ID 778)

Asymmetrical Arrangement of Coils in an Induction Heater to Improve Heat Distribution

Shi, Zhanghai (1); Cheng, K. W. E. (1); Xu, Wei (2)

1: Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: University of Technology, Sydney

PC11.14 (ID 796)

Comparison of a Direct and a Vector Potential Integral Equation Method

*Albert, Jan; Banucu, Remus; Reinauer, Veronika; Scheiblich, Christian; Rucker, Wolfgang
Institute for Theory of Electrical Engineering, Germany*

PC11.16 (ID 810)

Conformal Mapping: Schwarz-Christoffel Method for Flux-Switching PM Machines

Ilhan, Esin; Motoasca, Emilia; Paulides, Johan; Lomonova, Elena

Technical University of Eindhoven, Netherlands, The

PC11.17 (ID 816)

Approaches for Lightning Return Stroke Current Reconstruction

Ceclan, Andrei

Technical University of Cluj-Napoca, Romania

PC11.18 (ID 818)

Fast Computation of 3-D Eddy Current Problems with Integral Formulations using Wavelet Approximation Patterns

*Banucu, Remus; Albert, Jan; Scheiblich, Christian; Reinauer, Veronika; Rucker, Wolfgang M.
University of Stuttgart, Germany*

PC11.19 (ID 825)

Magnetic Field Analysis of Lesion Localization via GMR Probe

Yang, Wenrong (1); Yang, Qingxin (2); Zhang, Xiaojie (1); Xu, Guizhi (1); Hao, Xiaocong (1); Zhang Chuang (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: Tianjin Polytechnic University, China, Peoples Republic of

PC11.20 (ID 323)

A New Integral Formulation for Eddy Currents Computation in Thin Conductive Shells

Tung, Le Duc (1); Gérard, Meunier (2); Olivier, Chadebec (2); Jean-Michel, Guichon (3)

1: Grenoble Electrical Engineering Laboratory, University of Grenoble, France; 2: Grenoble Electrical Engineering Laboratory, CNRS UMR 5269, Grenoble, France; 3: Grenoble Electrical Engineering Laboratory, Université Joseph Fourier, France

PC11.21 (ID 831)

Numerical Computation of Ohmic and Eddy-Current Winding Losses of Drive Transformers Including Higher Harmonics of Load Current

Smajic, Jasmin; Hughes, Jillian; Steinmetz, Thorsten; Pusch, David; Moenig, Wolfgang; Carlen, Martin

ABB Switzerland Ltd. Corporate Research, Switzerland

PC11.22 (ID 837)

Speedup of Integral-FEM Based Solution of Eddy Currents Testing Problems Using Graphical Processing Unit

Preda, Gabriel; Popa, Valentin; Hantila, Florea Ioan

Politehnica University of Bucharest, Romania

PC11.23 (ID 881)

Subproblem Approach for Thin Shell Dual Finite Element Formulations

Dang, Vuong Q. (1); Dular, Patrick (1); Sabariego, Ruth V. (1); Krähenbühl, Laurent (2); Geuzaine, Christophe (1)

1: University of Liege, Belgium; 2: Université de Lyon, France

PC11.24 (ID 885)

A Finite Element Subproblem Method for Position Change Conductor Systems

Dular, Patrick (1); Krähenbühl, Laurent (2); Sabariego, Ruth V. (1); Ferreira da Luz, Mauricio V. (3); Kuo-Peng, Patrick (3); Geuzaine, Christophe (1)

1: University of Liege, Belgium; 2: Université de Lyon; 3: UFSC, Brazil

Session PC12: Coupled Problems (III)

16:00-17:00 – Bayside Gallery

PC12.1 (ID 548)

Application of Domain Decomposition combined Radial Basis Function Collocation Method in Moving Conductor Eddy Current Magnetic Problems

Yang, Guangyuan (1); Lei, Gang (1,2); Chen, Xiaoming (1); Shao, Keran (1); Guo, Youguang (2); Zhu, Jianguo (2); Lavers, J.D. (3)

1: Huazhong University of Science and Technology, China, Peoples Republic of; 2: University of Technology, Australia; 3: University of Toronto, Canada

PC12.2 (ID 550)

Finite Element Modeling of Deformable NEMS Taking into Account Mechanical Contact

Galopin, Nicolas; Pham-Quang, Phuong; Delinchant, Benoît; Coulomb, Jean-Louis

Grenoble Electrical Engineering Laboratory, France

PC12.3 (ID 586)

Dynamic Analysis Modeling under Dynamic Eccentricity — Stator Inter-turn Fault Coupling with Design Technique for Reliability Rise of IPM Motor

Reu, Jin-Wook (1); Park, Jun-Kyu (1); Hur, Jin (1); Kim, Byeong-Woo (1); Kang, Gyu-Hong (2)
 1: University of Ulsan, Korea, South (Republic of).; 2: Korea Marine Equipment Research Institute, Busan, Korea, South (Republic of).

PC12.4 (ID 597)

Frequency Domain Evaluation of Transient Finite Element Simulations of Induction Machines

Rainer, Siegfried (1); Bíró, Oszkár (1); Stermecki, Andrej (1,3); Weilharter, Bernhard (2,3)
 1: Institute for Fundamentals and Theory in Electrical Engineering, Austria; 2: Institute for Electrical Drives and Machines, Austria; 3: Christian Doppler Laboratory for Multiphysical Simulation, Analysis and Design of Electrical Machines, Austria

PC12.5 (ID 716)

Coupled Three Dimensional Numerical Calculation of Forces and Stresses on the End Windings of Large Turbo Generators via Integral Formulation

Albanese, R. (1); Calvano, F. (1); Dal Mut, G. (2); Ferraioli, F. (2); Formisano, A. (3); Marignetti, F. (4); Martone, R. (3); Rubinacci, G. (1); Tamburrino, A. (4); Ventre, S. (4)
 1: Dip. Di Ingegneria Elettrica, Univ. di Napoli "Federico II", Italy; 2: Ansaldo Energia, Italy; 3: Dip. di Ingegneria dell'Informazione, Seconda Università di Napoli, Italy; 4: DAEIMI, Univ. di Cassino, Italy;

PC12.6 (ID 725)

Second Order Moments in Linear Smart Material Composites

Corcolle, Romain; Daniel, Laurent
 Laboratoire de Génie Electrique de Paris, France

PC12.7 (ID 740)

Plasma Analysis Method for Electrodeless Discharge Lamp Using 3-D FEM

Ota, Tomohiro (1); Hirata, Katsuhiko (2)
 1: Panasonic Electric Works Analysis Center Co., Ltd.; 2: Osaka University

PC12.8 (ID 773)

Thermal Design of Natural Cooled Axial Flux Permanent Magnet Synchronous Generator Using Electromagnetic and Fluid-Dynamical Finite-Element Analysis

Li, Jian; Song, Xueguan; Jo, Chang-Hum; Cho, Yun-Hyun
 Dong-A University, Korea, South (Republic of)

PC12.9 (ID 815)

Lateral and Angular Misalignment Analytical Study for a Novel Witricity Charger

Wang, Junhua (1,2); Ho, S. L. (1); Fu, W. N. (1); Sun, Mingui (2)
 1: The Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: Department of Neurological Surgery, University of Pittsburgh, Pittsburgh, PA, USA

PC12.10 (ID 823)

Study of Giant Magnetostrictive Acceleration Sensors Considering Both Direct Magnetostrictive Effect and Inverse Magnetostrictive Effect

Yan, Rongge (1); Yang, Qingxin (2); Yang, Shengnan (1); Li Yongjian (1)
 1: Hebei University of Technology, China, Peoples Republic of; 2: Tianjin Polytechnic University, China, Peoples Republic of

PC12.11 (ID 847)

Discharge Analysis in Dielectric Liquids by Fully Coupled Finite Element Method for Dissociation and Thermal Effects

Lee, Ho-Young; Jeong, Geun-Young; Lee, Se-Hee

Kyungpook National University, Korea, South (Republic of)

PC12.12 (ID 877)

The Study on the Numerical Computation of Magnetic Field Coupled with Fluid Field in a Magnetic Fluid Sensor

Gao, Xin (1,2); Zhang, Xiumin (1,2); Jiao, Chaoqun (1,2); Huang, Zhirong (1,2)

1: School of Electrical Engineering, Beijing Jiaotong University, China,; 2: State Key Laboratory of Millimeter Waves, China

PC12.13 (ID 216)

Genetic Algorithm Optimization for Antenna Excitations in Microwave Hyperthermia for Breast Cancer

Yin, Xiaoming; Bai, Baodong

Shenyang University of Technology, China, Peoples Republic of

PC12.14 (ID 642)

Multi-physics Design Rules of Permanent Magnet Synchronous Machine with Lumped Models

Bracikowski, Nicolas; Ilea, Dan; Gillon, Frederic; Hecquet, Michel

Univ. Lille Nord de France, ECLille, L2EP, France

PC12.15 (ID 827)

Magneto-thermal Coupling: A Conservative-based Method for Scalar Field Projection

Moreau, Olivier; Nemitz, Nicolas; Ould-Rouis, Yacine

Electricite De France R&D, France

PC12.16 (ID 819)

Software Coupling and Orchestration Tool to the Modeling of Multi-physic Problems.

Mokhtari, Lounes; Delinchant, Benoit; Coulomb, Jean-Louis; Le-Duc, Tung; Chadebec, Olivier;

Guichon, Jean-Michel; Meunier, Gerard

Grenoble Electrical Engineering Laboratory, France

Friday 15 July 2011

Session OD1: Optimization

09:00-10:00 Bayside Auditorium A

OD1.1 (ID 264)

An Improved Cross-Entropy Method Applied to Inverse Problems

An, Siguang (3); Yang, Shiyu (2); Ho, Siu Lau (1); Ni, Peihong (2)

1: Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: College of Electrical Engineering, Zhejiang University, Hangzhou, 310027, China; 3: Department of Electrical Engineering, China Jiliang University, Hangzhou, 310018, China

OD1.2 (ID 732)

Multi-guiders and Cross-searching Approaches in Multi-objective Particle Swarm Optimization for Electromagnetic Problems

Koh, C.S.; Pham, Minh-Trien; Li, Wei

Chungbuk National University, Korea, South (Republic of)

Session PD1: Material Modelling (I)

10:00-11:00 – Bayside Gallery

PD1.2 (ID 128)

Dynamic Demagnetization Model of Permanent Magnets for Finite Element Analysis

Zhou, Ping (1); Lin, Dingsheng (2); Xiao, Yuming (1); Lambert, Nancy (1); Rahman, M. A. (2)

1: ANSYS, United States of America; 2: Memorial University of Newfoundland, Canada

PD1.3 (ID 191)

A Complete Model of Iron Losses Prediction in Electrical Machines Including Material Measurement, Data Fitting, FE Computation and Experiment Validation

Haisen, Zhao (1); Yingli, Luo (1); Ren H., Wang (2); Baldassari, Peter (3)

1: North China Electric Power University, China, Peoples Republic of; 2: Stanley Black & Decker Corporation; 3: MagneForce Software System Inc.

PD1.4 (ID 246)

Calibration of the Novel Sensing Structure in Three-Dimensional Magnetic Properties Measurement

Li, Yongjian (1,2); Zhu, Jianguo (2); Yang, Qingxin (1,3); Lin, Zhiwei (2); Guo, Youguang (2); Wang, Youhua (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: University of Technology, Sydney; 3: Tianjin Polytechnic University

PD1.5 (ID 247)

Study of 3-D Tensor Magnetic Reluctivity Properties of Soft Magnetic Composite Materials

Li, Yongjian (1,2); Yang, Qingxin (1,3); Lin, Yuesheng (1,2); Zhu, Jianguo (2); Guo, Youguang (2); Lin, Zhiwei (2); Wang, Yi (2)

1: Hebei University of Technology, China, Peoples Republic of; 2: University of Technology, Sydney, Australia; 3: Tianjin Polytechnic University, China

PD1.6 (ID 270)

A Dynamic and Anisotropic Vector Hysteresis Model Based on Isotropic Vector Play Model for Non-Oriented Silicon Steel Sheet

*Mastuo, Tetsuji; Miyamoto, Masaki
Kyoto University, Japan*

PD1.7 (ID 299)

Magnetical Behaviour Representation Taking into Account the Temperature of a Magnetic Nanocrystalline Material

*Chailloux, Thibaut; Raulet, Marie Ange; Martin, Christian; Joubert, Charles; Sixdenier, Fabien; Morel, Laurent
Laboratoire Ampere, France*

PD1.8 (ID 300)

Homogenised Magnetic Diffusion: Influence of the Static Hysteresis Model

*Chailloux, Thibaut; Raulet, Marie Ange; Martin, Christian; Joubert, Charles; Sixdenier, Fabien; Morel, Laurent
Laboratoire Ampere, France*

PD1.9 (ID 318)

Numerical Dynamic Strong Coupled Model of Linear Magnetostrictive Actuators

*Huang, Wenmei; Song, Guiying; Sun Ying; Wang Bowen; Zhang Chuang
Hebei University of Technology, China, Peoples Republic of*

PD1.10 (ID 325)

Experimental and Numerical Investigations of the Inverse Magnetostriction-Based Mechanical Stress Sensing

*Belahcen, Anouar; Peussa, Tommi
Aalto University, Finland*

PD1.11 (ID 334)

Integration of a New Hysteresis Model in the Finite Elements Method

Scorretti, Riccardo (1); Sabariego, Ruth (2); Sixdeniers, Fabien (1); Ducharne, Benjamin (3); Raulet, Marie Ange (1)

1: Laboratoire Ampère, France; 2: University of Liège, Belgium; 3: Laboratoire LGEF, France

PD1.13 (ID 370)

Application of EBG Substrate to 4G Mobile Antenna for Power Absorption Reduction in Human Head

*Ikeuchi, Ryo; Moirata, Shinya; Hirata, Akimasa
Nagoya Institute of Technology, Japan*

PD1.14 (ID 382)

3D FE Modelling of Interlamination Short-circuits Taking into Account the Building Bar

Muller, Juliana Luisa (3); Benabou, Abdelkader (1); Henneron, Thomas (1); Piriou, Francis (1); Bastos, João Pedro Assumpção (2); Roger, Jean-Yves (3)

1: Université de Lille 1, France; 2: Universidade Federal de Santa Catarina; 3: EDF R&D

PD1.15 (ID 388)

Chaotic Harmony Search Approach Applied to Jiles-Atherton Vector Hysteresis Parameters Estimation

Coelho, Leandro dos S. (2,3); Costa e Silva, Marsil de A. (2); Leite, Jean Viane (1)

1: GRUCAD/EEL/UFSC, Brazil; 2: PPGEPS/PUC/PR, Curitiba, PR, Brazil; 3: DELT/UFPR, Curitiba, PR, Brazil

Session PD2: Software Methodology

10:00-11:00 – Bayside Gallery

PD2.1 (ID 273)

State-of-the-art Programming Techniques of Finite Element Methods for Electromagnetic Field Computation

Chen, Ningning (1); Niu, Shuangxia (1); Ho, S.L. (1); Fu, W.N. (1); Zhu, Jianguo (2)

1: The Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering and Information Technology, University of Technology, Sydney, Australia

PD2.2 (ID 470)

A Parallel Implementation of dual-PEEC for Multicore and Multithreaded CPUs

Freschi, Fabio (1); Alotto, Piergiorgio (2)

1: Politecnico di Torino, Italy; 2: Università degli Studi di Padova

PD2.3 (ID 476)

Algorithms in ParAFEMImp: A Parallel and Wideband Impedance Extraction Program for Complicated 3-D Geometries

Cui, Tao (1); Chen, Junqing (2); Chen, Genlong (3); Zhu, Hengliang (3); Zeng, Xuan (3)

1: The Institute of Computational Mathematics and Scientific/Engineering Computing of Chinese Academy of Sciences, P. R. China; 2: Department of Mathematical Sciences, Tsinghua University, P.R. China; 3: ASIC & System State Key Lab., Microelectronics Dept. Fudan University, P.R. China

PD2.4 (ID 487)

Bidirectional Coupling - From 3D Field Simulation to Immersive Visualization Systems

Bündgens, Daniel (2); Hamacher, Andreas (2); Hafner, Martin (1); Kuhlen, Thorsten (2); Hameyer, Kay (1)

1: Institute of Electrical Machines -- RWTH Aachen University; 2: Virtual Reality Group -- RWTH Aachen University

PD2.5 (ID 521)

Power-Aware Parallel 3-D Finite Element Mesh Refinement Performance Modeling and Analysis on CUDA/MPI Multi-core and GPU Architectures

Ren, Da Qi (1,2); Suda, Reiji (1,2); Giannacopoulos, Dennis D. (3)

1: University of Tokyo, Japan; 2: 3JST, CREST, Japan; 3: McGill University, Canada

PD2.6 (ID 571)

Architecture Independent Performance Evaluation of Sparse Matrix-Vector Multiplication on Multi-Core Processors

Lowther, David; Moghnieh, Hussein

McGill University, Canada

PD2.7 (ID 595)

Identification of Permeability in Normal Direction of Anisotropic Sheets using FEM Mesh Adaption and Genetic Algorithms

Komez, Krzysztof (1); Napieralska Juszczak, Ewa (2); Lecointe, Jean-Philippe (2); Hihat, Nabil (2); Di Barba, Paolo (3)

1: Technical University of Lodz, Poland; 2: Université d'Artois, Laboratoire Systèmes Electrotechniques et Environnement, France; 3: Department of Electrical Engineering of Pavia, Italy

PD2.8 (ID 657)

Mesh Decomposition for Efficient Parallel Computing of Electrical Machines by Means of FEM Accounting for Motion

Böhmer, Stefan (1); Lange, Enno (1); Hafner, Martin (1); Cramer, Tim (2); Bischof, Christian (2); Hameyer, Kay (1)

1: Institute of Electrical Machines, RWTH Aachen University; 2: RWTH Aachen University, Center for Computing and Communication

PD2.9 (ID 663)

VHDL-AMS to Support DAE-PDE Coupling and Multilevel Modeling

Rezgui, Abir; Gerbaud, Laurent; Delinchant, Benoit

G2ELAB, Grenoble Electrical Engineering lab, France

PD2.10 (ID 670)

Automatic Multi-GPU Code Generation Applied to Simulation of Electrical Machines

Rodrigues, Antonio Wendell de Oliveira (1); Guyomarc'h, Frédéric (1); Le Menach, Yvonnick (2); Dekeyser, Jean-Luc (1)

1: LIFL - USTL, France; 2: L2EP - USTL, France

PD2.11 (ID 734)

An Electromagnetic Circuit Simulator for Power Electronics

Zwysen, Jeroen; Jacqmaer, Pieter; Gelagaev, Ratmir; Driesen, Johan

ELECTA-ESAT K.U.Leuven, Belgium

PD2.12 (ID 797)

3-D Topology Optimization of Dielectric Resonator in Waveguide Structure Considering Higher Mode Incidence

Choi, Nak-Sun (1); Kim, Dong-Hun (1); Lee, Hyang-Beom (2); Byun, Jin-Kyu (2)

1: Kyungpook Nat'l. Univ., Korea, South (Republic of); 2: Soongsil University, Korea, South (Republic of)

PD2.13 (ID 798)

JCuda Vectorized and Parallelized Computation Strategy for Solving Integral Equations in Electromagnetism on a Standard Personal Computer

Rubeck, Christophe; Bannwarth, B.; Chadebec, Olivier; Delinchant, Benoit; Yonnet, Jean-Paul; Coulomb, Jean-Louis

Grenoble Electrical Engineering Laboratory (G2Elab), France

PD2.14 (ID 809)

Object-Oriented Development of an Optimization Software in Java using Evolution Strategies

Reinauer, Veronika (1); Magele, Christian (2); Scheiblich, Christian (1); Stermecki, Andrej (2); Banucu, Remus (1); Albert, Jan (1); Jaendl, Michael (2); Rucker, Wolfgang M. (1)

1: University of Stuttgart, Germany; 2: University of Graz, Austria

PD2.15 (ID 814)

Parallel Realisation of the Element-by-Element FEM Technique by CUDA

Kiss, Imre; Gyimóthy, Szabolcs; Pávó, József

Budapest University of Technology and Economics, Hungary

Session PD3: Optimization (IV)

10:00-11:00 – Bayside Gallery

PD3.1 (ID 361)

Reconstruction of Deep Stress Corrosion Cracks Using Signals of the Pulsed Eddy Current Testing
Wang, Li (1); Xie, Shejuan (2); Chen, Zhenmao (1); li, Yong (1); Wang, Xiaowei (1); Takagi, Toshiyuki (2)

1: MOE Key Laboratory for Strength and Vibration, Xi'an Jiaotong University, China, Peoples Republic of; 2: Institute of Fluid Science, Tohoku University, Katahira 2-1-1, Aoba-ku, Sendai, 980-8577, Japan

PD3.2 (ID 423)

The Electromagnetic Actuator Design Problem: An Adapted Interval Global Optimization Algorithm using Model Reformulation and Constraint Propagation

Mazhoud, Issam (1); Hadj-Hamou, Khaled (1); Bignon, Jean (1); Remy, Ghislain (2)

1: G-SCOP - CNRS, Grenoble-INP-UJF, France; 2: LGEP / SPEE-Labs, CNRS UMR 8507, SUPELEC, Université Pierre et Marie Curie P6, Université Paris-Sud 11

PD3.3 (ID 462)

2D Resistivity Reconstruction via FEM-Based Bayesian Method

Li, Ying (1); He, Renjie (2); Rao, Liyun (3); Guo, Lei (1); Xu, Guizhi (1); Zhao, Huifang (1); Khoury, Dirar S (3); Yang, Wenrong (1); Wang, Youhua (1)

1: Hebei University of Technology, China, Peoples Republic of; 2: University of Texas at Houston, Houston, TX 77030, USA; 3: The Methodist Hospital Research Institute, Houston, TX 77030, USA

PD3.4 (ID 473)

Robust Analysis towards Robust Optimization in Engineering Design

Laura, Picheral (1); Khaled, Hadj-Hamou (1); Remy, Ghislain (2); Jean, Bignon (1)

1: G-SCOP Laboratory, France; 2: LGEP / SPEE-Labs, France

PD3.5 (ID 531)

Sequential Kriging Metamodel Based Stochastic Global Optimization for TEAM Workshop Problem 22

Cho, Su-gil; Lee, Minuk; Lee, Tae Hee

Hanyang University, Korea, South (Republic of)

PD3.6 (ID 553)

Mixing Techniques to Compute Derivatives of Semi-numerical Models: Application to Magnetic Nano Switch Optimization

Pham-Quang, Phuong (1,2); Delinchant, Benoit (1); Ilie, Cristina (3); Slusanschi, Emil (3); Coulomb, Jean-Louis (1); Du Peloux, Bertrand (2)

1: Grenoble Electrical Engineering Laboratory, G2ELab; 2: Cedrat SA; 3: Computer Science and Engineering, University Politehnica of Bucharest

PD3.7 (ID 567)

Application of the Two-Level Response and Parameter Mapping for Solution of Inverse Problem in Eddy Current Testing type-NDT

Putek, Piotr Adam

Gent University, Belgium

PD3.8 (ID 568)

Shape Reconstruction of Defects in Multi-frequency Eddy Current Testing using the Level Set and Tellegen's Adjoint Method

Putek, Piotr Adam

Gent University, Belgium

PD3.9 (ID 570)

Comparison of Evolutionary and Rule-Based Strategies for Electromagnetic Device Optimization

Lowther, David; Ouyang, Jun

McGill University, Canada

PD3.10 (ID 573)

A Mapping Technique in Finite Element Method of Magnetic Field Computation for Reduction of Optimization Computation Time

Chen, Ningning (1); Ho, S. L. (1); Fu, W. N. (1); Zhu, Jianguo (2)

1: The HK Polytechnic University, Hong Kong S.A.R. - China; 2: Faculty of Engineering, University of Technology, Sydney, P.O. Box 123, Broadway NSW 2007, Australia

PD3.11 (ID 574)

A Moving Mesh Algorithm for Electromagnetic Devices Optimization Using Finite Element Method

Ho, S. L.; Chen, Ningning; Fu, W. N.

The HK Polytechnic University, Hong Kong S.A.R. - China

PD3.12 (ID 599)

Non-Dominated Sorting Genetic Algorithm Based on Reinforcement Learning to Optimization of Broad-Band Reflector Antennas Satellite

Bora, Teodoro C. (2); Lebensztajn, Luiz (1); Coelho, Leandro dos S. (2)

1: Escola Politécnica da Universidade de São Paulo, Brazil; 2: Automation and Systems Laboratory, Industrial and Systems Engineering Graduate Program, Pontifical Catholic University of Paraná

PD3.13 (ID 607)

Development of Interior Permanent Magnet Motors for Underwater Propulsions

Wang, Youlong; Wen, Xuhui; Zhang, Lei; Zhang, Jian

Institute of Electrical Engineering, Chinese Academy of Sciences, China, Peoples Republic of

PD3.14 (ID 610)

Optimal Flux Barrier Design of Interior Permanent Magnet Motor for Torque Ripple Reduction under Stress Constraint

Park, Seunggyun; Min, Seungjae; Hong, Jung-Pyo

Hanyang University, Korea, South (Republic of)

PD3.15 (ID 631)

Numerical Analysis and Performance Optimum of an HTS Suspension Propulsion System Driven by a SLIM

Zheng, Lu-Hai (1); Jin, Jian-Xun (1); Xu, Wei (2); Guo, You-Guang (2); Zhu, Jian-Guo (2)

1: School of Automation, University of Electronic Science and Technology of China, Chengdu, China; 2: Faculty of Engineering and Information Technology, University of Technology Sydney, Sydney, Australia

Session PD4: Material Modelling (II)

11:30-12:30 – Bayside Gallery

PD4.1 (ID 389)

Multiobjective Exponential Particle Swarm Optimization Approach Applied to Hysteresis Parameters Estimation

Coelho, Leandro dos S. (1,4); Guerra, Fábio A. (2); Leite, Jean Viane (3)

1: Delt/UFPR, Curitiba, PR, Brazil; 2: Lactec, Curitiba, PR, Brazil; 3: GRUCAD/EEL/UFSC, Brazil; 4: PPGEPS/PUCPR, Curitiba, PR, Brazil

PD4.2 (ID 420)

Application of Thin Plate with JA Model with Compressive Stress to Thin Plate

Yun, Kyyoul; Fujisaki, Keisuk

Toyota Technological Institute, Japan

PD4.3 (ID 426)

Computation of Extrinsic Magneto-Electric Problem using E-H formulation

Nguyen, Thu Trang; Bouillault, Frédéric; Mininger, Xavier; Daniel, Laurent

LGEF, France

PD4.4 (ID 433)

Application of the Preisach Model with a Neural Weighting Function Approximator to Modeling of Selected Branched Characteristics

Stryczewska, Henryka D. (1); Wac-Włodarczyk, Andrzej (1); Janowski, Tadeusz (1); Nafalski,

Andrew (2); Gizewski, Tomasz (1); Goleman, Ryszard (1); Czerwinski, Dariusz (1); Koziel, Joanna

(1); Komarzyniec, Grzegorz (1)

1: Lublin University of Technology, Poland; 2: School of Electrical and Information Engineering, University of South Australia

PD4.5 (ID 468)

A Robust Method to Estimate the Parameters of Chemical Hysteresis Model

Gabi, Yasmine

Grenoble Electrical Engineering Laboratory - G2Elab

PD4.6 (ID 494)

Modeling of Losses and Current Density Distribution in Conductors of a Large Air Gap Transformer Using Homogenization and 3D FEM

Sibué, Jean-Romain (1,2); Ferrieux, Jean-Paul (1); Meunier, Gérard (1); Périot, Robert (2)

1: G2Elab, France; 2: ALSTOM, France

PD4.7 (ID 495)

Numerical Analysis of a Nondestructive Online Testing System for Dual Phase Steels

Gabi, Yasmine

Grenoble Electrical Engineering Laboratory - G2Elab

PD4.8 (ID 498)

3D FEM Adjoin Formulations Combination for PM Material Modeling

Beniakar, Minos E.; Tsampouris, Evangelos M.; Kladas, Antonios G.

National Technical University of Athens, Greece

PD4.9 (ID 499)

Efficient Metafilm/Metasurface Characterization for Obliquely Incident TE Waves via Surface Susceptibility Models

Dimitriadis, Alexandros (1); Kantartzis, Nikolaos (1); Rekanos, Ioannis (2); Tsiboukis, Theodoros (1)

1: Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece; 2: Physics Division, School of Engineering, Aristotle University of Thessaloniki, Greece

PD4.10 (ID 501)

Optimal Modeling of Infinite Graphene Sheets via a Class of Generalized FDTD Schemes

Bouzianas, George; Kantartzis, Nikolaos; Antonopoulos, Christos; Tsiboukis, Theodoros
Department of Electrical and Computer Engineering, Aristotle University of Thessaloniki, Greece

PD4.11 (ID 509)

3D Numerical Evaluation of HTSC Levitation Forces Using a Novel Technique Based on the Control Volume Method

Alloui, Lotfi (1,2); Bouillault, Frédéric (1); Mimoune, Souri (2); Leveque, Jean (3); Bernard, Laurent (1)

1: Laboratoire de Génie Electrique de Paris (LGEPE), France; 2: Laboratoire de Modélisation des systèmes Energétiques (LMSE), Biskra, ALgérie; 3: Groupe de Recherche en Electrotechnique et Electronique de Nancy, (GREEN), France

PD4.12 (ID 510)

An Improved Complex Reluctivity Model Considering 2D Magnetic Properties of Electrical Steel Sheet

Liu, Yang; Zhang, Yanli; Xie, Dexin

Shenyang University of Technology, China, Peoples Republic of

PD4.13 (ID 515)

Modelling Dynamic Losses under Rotational Magnetic Flux

Leite, Jean Viane (1); da Luz, Mauricio V. Ferreira (1); Sadowski, Nelson (1); da Silva Jr., Pedro A. (2)

1: GRUCAD/EEL/UFSC, Brazil; 2: IFSC, São José, SC, Brazil

PD4.14 (ID 545)

Finite Element Computational Homogenization of Nonlinear Multiscale Materials in Magnetostatics

Niyonzima, Innocent; Sabariego, Ruth V.; Dular, Patrick; Geuzaine, Christophe
Applied and Computational Electromagnetics (ACE), University of Liege, Belgium

PD4.15 (ID 562)

Inspection of the Delamination of Magnetic and Non-magnetic Conducting Layers using NDT

Gyimóthy, Szabolcs; Vaskó, András; Pávó, József

Budapest University of Technology and Economics, Hungary

Session PD5: Electric Machines and Drives (X)

11:30-12:30 – Bayside Gallery

PD5.1 (ID 783)

Analysis and Design of Slotted Tubular Linear Actuator for the Eco-Pedal System of a Vehicle

Kim, Young Kyoung (1); Gu, Bon-Gwan (1); Jung, In-Soung (1); Won, Sung-Hong (2)

1: Korea Electronics Technology Institute, Korea, South (Republic of); 2: Dept. of Electric System, Dongyang Mirae University, Korea, South (Republic of)

PD5.2 (ID 785)

Full and Simplified Loss Calculation FEM Models for Segmented Surface Permanent Magnet Machines

Funieru, Bogdan; Mirzaei, Mehran; Binder, Andreas

TU Darmstadt, Germany

PD5.3 (ID 786)

Optimal Design of Line-Start Permanent Magnet Motor with Cost Reduction and Performance Improvements

Li, Jian; Song, Jeong-Tae; Cho, Yun-Hyun

Dong-A University, Korea, South (Republic of)

PD5.4 (ID 802)

Analysis and Modeling of Stator Slot-Opening Effect on Open-Circuit Air-gap Field Distribution in Interior-type Permanent Magnet Machine

Fang, Liang; Kim, Do Jin; Hong, Jung-pyo

Hanyang University, Korea, South (Republic of)

PD5.5 (ID 826)

Diagnosis of Phase to Phase Short Circuit Faults in Vector Controlled Permanent Magnet Synchronous Motors

Djerdir, Abdesslem (1); Hadej, Mounir (1,2); Mekideche, Mohamed (2); N'diaye, Abdoul-Osmane (1); Miraoui, Abdellatif (1)

1: SET/UTBM, France; 2: Université de Jijel/LAMEL, Algérie

PD5.6 (ID 839)

The Reduction of Torque Ripple in Spoke type Transverse Flux Rotary Machine for Direct Drive Motor

Hong, Do-Kwan; Lee, Ji-Young; Woo, Byung-Chul; Chung, Si-Uk

Korea Electrotechnology Research Institute, Korea, South (Republic of)

PD5.7 (ID 844)

An Analytical and Numerical Model to Predict Static and Dynamic Performance of a Torus Machine with Two Permanent Magnets Topologies

Martins Osório, Jonas Obert; Ferreira Flores Filho, Aly; Eckert, Paulo Roberto; Tiaraju dos Reis Loureiro, Luiz

Federal University of Rio Grande do Sul, Brazil

PD5.8 (ID 845)

Modeling and Analysis of Synchronous Machines with Broken Damper Bars

Rahimian, Mina

Texas A&M University, United States of America

PD5.9 (ID 848)

Hysteresis Torque Analysis of Permanent Magnet Motors Using Preisach Model

Lee, Jeong-Jong (1); Kim, Young-Kyoun (1); Rhyu, Se-Hyun (1); Jung, In-Soung (1); Chai, Seung-Hee (2); Hong, Jung-Pyo (2)

1: Intelligent Mechatronics Research Center, Korea Electronics Technology Institute, Korea; 2: Department of Automotive Engineering, Hanyang University, Seoul, Korea

PD5.10 (ID 849)

Unbalanced Radial Force and Vibration Mode Analysis of Large Interior Permanent Magnet Machines with Static, Dynamic and Mixed Air-gap Eccentricity

Kang, Gyu Hong (1); Lee, Sun Kwon (1); Kim, Hyung Kyu (1); Hur, Jin (2)

1: Korea Marine Equipment Research Institute, Korea, South (Republic of); 2: University of Ulsan, Korea, South (Republic of)

PD5.11 (ID 856)

Design of Electric Powertrains for Vehicles using Driving Cycles

Krebs, Guillaume; de Cecco, Eric; Marchand, Claude

Laboratoire de Génie Electrique de Paris (LGE), France

PD5.12 (ID 859)

Stator Core with Slits in Transverse Flux Rotary Machine to Reduce Eddy Current Loss

Lee, Ji-Young (1); Koo, Dae-Hyun (1); Kang, Do-Hyun (1); Hong, Jung-Pyo (2)

1: Korea Electrotechnology Research Institute, Korea, South (Republic of); 2: Department of Automotive Engineering, Hanyang University, Korea, South (Republic of)

PD5.13 (ID 876)

A Novel Rotor Configuration and Experimental Verification of Interior PM Synchronous Motor for High-speed Applications

Kim, Sungil; Kim, Youngkyoun; Lee, Geunho; Hong, Jungpyo

Hnayang University, Korea, South (Republic of)

PD5.14 (ID 893)

A Novel Analytical Method for Loss Calculation in Line-Start and Inverter-Fed Induction Motors under Broken Bars Fault

Ebrahimi, Bashir Mahdi; Takbash, Amir Masoud; Faiz, Jawad

University of Tehran, Iran, Islamic Republic of

PD5.15 (ID 707)

Ultra High Speed Motor Supported by Air Foil Bearings for Air Blower Cooling Fuel Cells

Hong, Do-Kwan; Woo, Byung-Chul; Koo, Dae-Hyun

Korea Electrotechnology Research Institute, Korea, South (Republic of)

Session PD6: Optimization (V)

11:30-12:30 – Bayside Gallery

PD6.1 (ID 636)

Optimum Design of Wideband Bandpass Filter with CSRR-loaded Transmission Line using Evolution Strategy

Kim, Hyeong-Seok (1); Kim, Koon-Tae (1); Ko, Jae-Hyeong (1); Choi, Kyung (2); Lee, Je-Kwang (1)

1: Chung-Ang University, Korea, South (Republic of); 2: Kangwon National University, Korea, South (Republic of)

PD6.2 (ID 643)

Comparison of Topology Optimization Methods for Cogging Torque Reduction of Permanent Magnet BLDC Motor

Meng, Xiangjun (1); Wang, Shuhong (1); Qiu, Jie (1); Duan, Nana (1); Zhang, Qiuhui (1); Zhu, Jian Guo (2); Guo, Youguang (2)
1: Xi'an Jiaotong University, China, Peoples Republic of; 2: University of Technology, Sydney, Australia

PD6.3 (ID 660)

Evolutionary Computation Combined with Advanced Numerical Field Analysis for Multi-winding Transformer Design Optimization

Tsili, Marina (1); Amoiralis, Eleftherios (2); Kladas, Antonios (1); Souflaris, Athanassios (3)
1: National Technical University of Athens, Greece; 2: Technical University of Crete, Greece; 3: Schneider Electric AE, Greece

PD6.4 (ID 665)

A Modified Imperialist Competitive Algorithm for Optimization in Electromagnetics

Alotto, Piergiorgio (1); Dos Santos Coelho, Leandro (2); Afonso, Leonardo D. (3)
1: Università di Padova, Italy; 2: Pontifical Catholic University of Parana, Curitiba, Brazil; 3: Federal University of Parana, Curitiba, Brazil

PD6.5 (ID 667)

Bat-Inspired Optimization Approach for the Brushless DC Wheel Motor Problem

Bora, Teodoro (1); Coelho, Leandro Dos Santos (1); Lebensztajn, Luiz (2)
1: Automation and Systems Laboratory, PPGEPS, Pontifical Catholic University of Paraná; 2: Laboratório de Eletromagnetismo Aplicado, LMAG-PEA, Escola Politécnica da Universidade de São Paulo

PD6.6 (ID 671)

Multi-domain Topology Optimization of Pulsed Magnetic Field Generator Sourced by Harmonic Current Excitation

Lee, Jangwon; Kook, Junghwan; Wang, Semyung
Gwangju Institute of Science and Technology, Korea, South (Republic of)

PD6.7 (ID 674)

Design and Analysis of Resonator for Wireless Power Transmission System Based on Resonant Coupling

Yan, Zhuo (1); Zhang, Chao (1); Chen, Haiyan (1); Li, Yongjian (1), Yang, Qingxin (2); Li, Yang (2)
1: Heibei University of Technology, China, Peoples Republic of; 2: Tianjin Polytechnic University, Tianjin, China

PD6.8 (ID 678)

Optimization of Permanent Magnetic Actuator for Minimizing Permanent Magnet Using Response Surface Method

Son, Ju-Wan; Ahn, Hyun-Mo; Park, Kug-Nam; Jeon, Kyung-Won; Hahn, Sung-Chin
Dong-A University, Korea, South (Republic of)

PD6.9 (ID 682)

Evolutional Design of Waveguide Slot Antenna with Dielectric Lenses

Keiichi, Itoh (1); Katsumasa, Miyata (1); Hajime, Igarashi (2)
1: Akita National College of Technology, Japan; 2: Hokkaido University, Japan

PD6.10 (ID 698)

Design Optimization of a Round-Rotor Synchronous Generator for Enhancing Short-Circuit Ratio (SCR)

Soares de Carvalho, Elissa (1); Kuo-Peng, Patrick (2); Wurtz, Frederic (3)
1: UFSC - Universidade Federal de Santa Catarina, Brazil; 2: WEG Equipamentos Elétricos S/A - Energy Division; 3: 3G2ELab Laboratory, INPG/UJF/CNRS

PD6.11 (ID 718)

Optimizing the Electrothermal Dynamics in Radio Frequency Ablation Treatments

Ferraioli, F.; Formisano, A.; Martone, R.

Seconda Università di Napoli, Italy

PD6.12 (ID 782)

Application of the PSO Algorithm to the Multi-objective Optimization of Insulation Elements based on Dynamic Population Size

Kitak, Peter (1); Ticar, Igor (1); Glotic, Adnan (1); Pihler, Joze (1); Biro, Oszkar (2); Preis, Kurt (2)

1: University of Maribor, Slovenia; 2: Graz University of Technology, Austria

PD6.13 (ID 743)

Secondary Optimization of Linear Induction Motor by Finite Element Method and Analytical Method considering Transverse Edge Effect

Jang, Seok-Myeong (1); Park, Yu-Seop (1); Ko, Kyoung-Jin (1); Choi, Jang-Young (1); Sung, So-Young (2)

1: Chungnam National University, Korea, South (Republic of); 2: Korea Ocean Research & Development Institute, Korea, South (Republic of)

PD6.14 (ID 750)

Robust Global Optimization of Electromagnetic Devices with Uncertain Design Parameters: Comparison of Worst-Case Optimization and Gradient Index Method

Koh, C.S.; Ren, Ziyang; Pham, Minh-Trien

Chungbuk National University, Korea, South (Republic of)

PD6.15 (ID 751)

Optimal Design of Inductors - Transformers Associated to Converters for Railway Application

Rossi, Mathieu; Hecquet, Michel; Lanfranchi, Vincent

Univ. Lille Nord de France, ECLille, L2EP, France

Session OD2: Static Fields and Quasi-Static Fields

13:30-14:30 Bayside Auditorium A

OD2.1 (ID 322)

Comparison between Fast Steady-State Analysis Methods for Time-Periodic Nonlinear Magnetic Field Problems

Takahashi, Yasuhito (1); Tokumasu, Tadashi (2); Fujita, Masafumi (2); Wakao, Shinji (3); Fujiwara, Koji (1); Ishihara, Yoshiyuki (1)

1: Doshisha University; 2: Toshiba Corporation Power Systems Company; 3: Waseda University

OD2.2 (ID 828)

Efficient Solution of Transient Eddy Current Problems Using Linear/Nonlinear Domain Substructuring

Schöps, Sebastian (1); Bartel, Andreas (1); Clemens, Markus (2)

1: Chair of Applied Mathematics, Bergische Universität Wuppertal, Germany; 2: Chair of Electromagnetic Theory, Bergische Universität Wuppertal, Germany

Session PD7: Material Modelling (III)

14:30-15:30 – Bayside Gallery

PD7.1 (ID 649)

Temperature Dependence of Magnetic Properties for Sensitized Alloy 600

Suzuki, Kenji (1); Takase, Tsugiko (1); Yamaguchi, Katsuhiko (1); Nittono, Osamu (1); Uchimoto, Tetsuya (2); Takagi, Toshiyuki (2)

1: Fukushima University, Japan; 2: Tohoku University, Japan

PD7.2 (ID 730)

A Vector Jiles-Atherton Hysteresis Model and Its Application to Finite Element Analysis of Iron Loss

Koh, C.S.; Li, Wei; Seo, Minkyu; Kim, Inhyun

Chungbuk National University, Korea, South (Republic of)

PD7.3 (ID 754)

TLM Modeling in Electrical Grounding Problem Including the Soil Dispersive Behavior through the Debye Equation in Lightning Situations

Wisintainer, Bruno William (1); Almaguer, Hugo Armando Dominguez (2); Raizer, Adroaldo (1); Silveira, Jony Laureano (3)

1: Federal University of Santa Catarina, Brazil; 2: Regional University of Blumenau, Brazil; 3: Federal Institute of Santa Catarina, Brazil

PD7.4 (ID 758)

Micromagnetics Simulation for Large Size Magnetic Domain Structure of Ferromagnetic Material by Modifying Representation of Exchange Energy

Ebrahimi, Hassan; Gao, Yanhui; Muramatsu, Kazuhiro

Saga University, Japan

PD7.5 (ID 760)

Investigation on Simple Numeric Modelling of Anomalous Eddy Current Loss in Steel Plate Using Modified Conductivity

Gao, Yanhui; Matsuo, Yuhei; Muramatsu, Kazuhiro

Dept. of Electrical and Electronic Engineering, Saga Univ., Japan

PD7.6 (ID 791)

Accuracy Improved Chua-type Vector Hysteresis Model and Its Application to Iron Loss Analysis of Three-phase Induction Motor

Koh, C.S. (1); Yoon, H.S. (1); Song, M.H. (1); Shin, P.S. (2)

1: Chungbuk National University, Korea, South (Republic of); 2: Hongik University, Jochiwon, Korea, South (Republic of)

PD7.7 (ID 804)

Magnetic Field Analysis Taking Account of Stress-Dependent Magnetic Properties of Non-Oriented Electrical Steel Sheets

Kurita, Naoki; Takahashi, Yasuhito; Fujiwara, Koji; Ishihara, Yoshiyuki

Doshisha University, Japan

PD7.8 (ID 806)

Hybrid Magnetic Field Formulation Based on the Losses Separation Method for Modified Dynamic Inverse Jiles-Atherton Model

Hamimid, Mourad (1); Mimoune, Souri Mohamed (2); Feliachi, Mouloud (3)

1: LMSE, Université de Biskra, Algeria; 2: LMSE, Université de Biskra, Algeria; 3: IREENA-IUT, CRTT, Saint Nazaire, France

PD7.9 (ID 817)

Adaptive Method for Non-Intrusive Spectral Projection: Application on Eddy Current Non Destructive Testing

Moreau, Olivier (1); Beddek, Karim (2); Clenet, Stephane (2); Costan, Valentin (1); Le Menach, Yvonnick (3); Benabou, Abdelkader (3)

1: Electricite De France R&D, France; 2: Arts et Métiers ParisTech, L2EP, France; 3: Université Lille 1, L2EP, France

PD7.10 (ID 821)

A Simple Model to Explain the Leakage Flux Measured around an Off Line Transformer

Cavallera, Didier (1); Coulomb, Jean-Louis (2); Chadebec, Olivier (2); Caillault, Bruno (1); Zgainski, François-Xavier (1)

1: EDF, France; 2: G2ELab, France

PD7.12 (ID 841)

Compound TiO₂ Interlayers for the Novel Witricity Charger with FEM Simulations and Corresponding Experiments

Wang, Junhua (1,2); Ho, S. L. (1); Fu, W. N. (1); Sun, Mingui (2); Zhu, Jianguo (3)

1: The Hong Kong Polytechnic University, Hong Kong S.A.R. - China; 2: Department of Neurological Surgery, University of Pittsburgh, Pittsburgh, PA, USA; 3: Faculty of Engineering and Information Technology, University of Technology, Sydney, Broadway NSW 2007, Australia

PD7.13 (ID 855)

Magnetization Simulation of Permanent Magnets by using Three-dimensional VMSW Method Taking Demagnetization Process into Account

Nakahata, Yasushi (1); Todaka, Takashi (2); Enokizono, Masato (2)

1: Oita Prefectural Organization for Industry Creation, Japan; 2: Oita University, Japan

PD7.14 (ID 866)

Neural Network Approach for Modelling Hysteretic Magnetic Materials under Distorted Excitations

Riganti Fulginei, Francesco; Salvini, Alessandro

Roma Tre University, Italy

PD7.15 (ID 879)

Frequency Domain Computation of Eddy Currents in Superconductors

Mezani, Smail; Douine, Bruno; Lubin, Thierry; Leveque, Jean; Rezzoug, Abderrezak

Université Henri Poincaré, France

Session PD8: EMC

14:30-15:30 – Bayside Gallery

PD8.1 (ID 425)

2-D Equivalent Modeling and Analysis of Quadratic Electromagnetic Linear

Park, Se-Myung (1); Kim, Jin-Ho (1); Lee, Jung-Hun (1); Oh, Sang-Heun (2); Park, Un-Hwan (2)

1: Yeungnam University, Korea, South (Republic of); 2: Advanced Development R&D Center, Pyung Hwa Co., Korea, South (Republic of)

PD8.2 (ID 428)

Finite Element Analysis of Shielding Composite Enclosures

Bizard, Cyrille; Mininger, Xavier; Pichon, Lionel

LGEP, France

PD8.3 (ID 482)

Modeling Radiated Emissions from Medical Equipment for EMC Environmental Management in Hospitals

Valente Junior, Wilson (1,2); Amaral, Matheus H. (1); Raizer, Adroaldo (1); Pichon, Lionel (2)

1: Universidade Federal de Santa Catarina, Brazil; 2: Université Paris Sud and Université Pierre et Marie Curie, France

PD8.4 (ID 506)

Fault Detection System with Noninvasive Magnetic Passive Sensor and Support Vectors Machine

Carvalho, Alexandre Miguel de (1); Sevegnani, Francisco Xavier (2); Sartori, Carlos Antonio França (3)

1: Primeira Opção Engenharia Elétrica LTDA, Brazil; 2: Centro das Ciências Exatas CCET/PUC/SP, 05508-900 São Paulo, SP, Brazil; 3: Dep. de Eng. de Energia e Automação Elétricas Escola Politécnica PEA/EPUSP, 05508-900 São Paulo, SP, Brazil

PD8.5 (ID 519)

Investigations of Near-fields at Low and High Frequency using Numerical Approach

Panchal, Chirag; Lu, Junwei; Zhu, Boyan

Griffith University, Australia

PD8.6 (ID 523)

Time-Domain Simulation of Complex Grounding Devices Considering Soil Ionization

Wu, Jinpeng (1); Zhang, Bo (1); Yu, Shaofeng (2); He, Jinliang (1); Zeng, Rong (1)

1: State Key Lab of Power Systems, Department of Electrical Engineering, Tsinghua University, Beijing, China; 2: Zhejiang Electric Power Test and Research Institute, Hangzhou, China

PD8.7 (ID 533)

A Study on the Simulation and Experiment of Flat Coil Actuator with Shorted Turn for Fast Initial Response

Hwang, KiIl (1); Kim, JinHo (2)

1: Yeungnam University, Korea, South (Republic of); 2: Yeungnam University, Korea, South (Republic of)

PD8.8 (ID 541)

Design of Air compressor Driving Linear Actuator for the High Performance of Fuel Cell BOP System using Taguchi Method

Kim, Jae-Hee; Kim, Jin-Ho

Yeungnam University, Korea, South (Republic of)

PD8.9 (ID 673)

Simulation of Wireless Communications Induced SAR for Interlaboratory Comparison

Firmino, Luciana (1); Nyland, Felipe (1); Valente Jr., Wilson (1); Raizer, Adroaldo (1); Almeida, Antônio (2)

1: GEMCO, Brazil; 2: CPqD, Brazil

PD8.10 (ID 728)

Calibration Methods for a Large Loop Antenna Measurement System

Ferber, Moises (1); Perrussel, Ronan (1); Zangui, Sanâa (1); Vollaïre, Christian (1); Sartori, Carlos (2); Krähenbühl, Laurent (1); Vincent, Benjamin (1)

1: Laboratoire Ampère (CNRS UMR5005) France; 2: Laboratório de Eletromagnetismo Aplicado (LMAG/PEA/EPUSP) Brazil

PD8.11 (ID 808)

Modeling and Analysis of an Anechoic Chamber

Benko, Peter Tamas; Pavo, Jozsef

Budapest University of Technology and Economics, Hungary

PD8.12 (ID 867)

A Spectrally-Accurate FVTD Technique for Complicated Amplification and Reconfigurable Filtering EMC Devices

Kantartzis, Nikolaos V. (1); Assimonis, Stylianos D. (1); Lalas, Antonios X. (1); Scott, Jonathan B. (2); Antonopoulos, Christos S. (1)

1: Dept. of Electrical and Computer Engineering, Aristotle University of Thessaloniki, GR-54124, Thessaloniki, Greece; 2: School of Engineering, The University of Waikato, Hamilton 3240, New Zealand

PD8.13 (ID 874)

Numerical Dosimetry Schemes for the Simulation of Human Exposure to Pulsed High-Power Electromagnetic Field Sources

Clemens, Markus (1); Dickmann, Stefan (2); El Ouardi, Abdessamad (1); Hansen, Volkert (1); Streckert, Joachim (1); Zhou, Yi (1)

1: Bergische Universitaet Wuppertal, Germany; 2: Helmut-Schmidt-University, Germany

PD8.14 (ID 886)

A Critical Comparison of Formulations for the Computation of Induced ELF Fields into the Human Body

Lelong, Thomas (1); Thomas, Pierre (1); Magne, Isabelle (1); Scorretti, Riccardo (2); Burais, Noel (2); Piriou, Francis (3)

1: EDF R&D, France; 2: Laboratoire Ampère, Université de Lyon, France; 3: L2EP, Université de Lille, France

Session PD9: Optimization (VI)

14:30-15:30 – Bayside Gallery

PD9.1 (ID 756)

Multiobjective Biogeography-Based Optimization Based on Predator-Prey Approach for the Brushless DC Wheel Motor Problem

Lebensztajn, Luiz (1); Costa e Silva, Marsil de A. (2); Coelho, Leandro dos S. (2)

1: Escola Politécnica da Universidade de São Paulo, Brazil; 2: Automation and Systems Laboratory, PPGEPS, Pontifical Catholic University of Paraná

PD9.2 (ID 757)

Programmable Design of Magnet Shape of Permanent Magnet Synchronous Machine for Minimization of Torque Pulsation

Jang, Seok-Myeong (1); Park, Hyung-Il (1); Choi, Jang-Young (1); Ko, Kyoung-Jin (1); Lee, Sung-Ho (2)

1: Chungnam National University, Korea, South (Republic of); 2: Korea Institute of Industrial Technology Gwangju Research Center, Korea, South (Republic of)

PD9.3 (ID 766)

Topological Shape Optimization of Permanent Magnet of Voice Coil Motor using Level Set Method

Lee, Jangwon; Wang, Semyung

Gwangju Institute of Science and Technology, Korea, South (Republic of)

PD9.4 (ID 775)

S-parameter Sensitivity for Optimization of Microstrip Structures with Lumped Ports Based on Continuum Design Sensitivity

Kim, Hyeong-Seok (1); Ko, Jae-Hyeong (1); Byun, Jin-Kyu (2); Chung, Tae-Kyung (1)

1: Chung-Ang University, Korea, South (Republic of); 2: Soongsil University, Korea, South (Republic of)

PD9.6 (ID 816)

Comparison of Efficient Global Optimization and Output Space Mapping on the Bi-objective Optimization of a Safety Isolating Transformer

Berbecea, Alexandru Claudiu; Ben Ayed, Ramzi; Gillon, Frédéric; Brisset, Stéphane; Brochet, Pascal

Ecole Centrale de Lille, France

PD9.7 (ID 830)

Permanent Magnet Geometry Optimization for Surface PM Motor with Maximum Power Density by using a Particular Vernier Technique

Laskaris, Konstantinos I.; Kladas, Antonios G.

National Technical University of Athens, Greece

PD9.8 (ID 834)

A Small Population based CSA/QPSO Hybrid Evolutionary Algorithm for High-Dimensional Multimodal Optimization Problems: MCQPHE

Santos, Guilherme (1,2); Carpes Jr., Walter Pereira (1,2)

1: Federal University of Santa Catarina, Brazil; 2: Grupo de Conceção e Análise de Dispositivos Eletromagneticos - GRUCAD

PD9.9 (ID 840)

Population Diversity Control in Genetic Algorithm Method using the Discrete Wavelet Transform and the k-means Clustering

1: Nove de Julho University, Brazil; 2: São Paulo University, USP, Brazil

Pereira, Fabio Henrique (1); Lopes, Elenice da Conceição (1); Nabeta, Silvio (2)

PD9.10 (ID 857)

A small population based CSA/QPSO Hybrid Evolutionary Algorithm for High-Dimensional Multimodal Optimization Problems: MCQPHE

Santos, Guilherme; Walter P. Carpes Jr.

Federal University of Santa Catarina, Brazil

PD9.12 (ID 872)

Shape Optimization of Multistage Depressed Collectors by Parallel Evolutionary Algorithm

Riganti Fulginei, Francesco (1); Salvini, Alessandro (1); Laudani, Antonino (2); Coco, Salvatore (2); Pulcini, Giuseppe (1)

1: Roma Tre University, Italy; 2: Catania University, Italy

PD9.13 (ID 883)

A Particle Swarm Optimization Algorithm with Novel Expected Fitness Evaluation for Robust Optimization Problems

Luan, Feng (1,2); Choi, Jong-Ho (1); Jung, Hyun-Kyo (1)

1: Seoul National University, Korea, South (Republic of); 2: Northeastern University, Shenyang, China

PD9.14 (ID 891)

A Multi-objective Evolutionary Algorithm with Decomposition for Optimal Design of Yagi-Uda Antennas

Carvalho, Rodrigo; Saldanha, Rodney R.; Gomes, Bruno N.; Lisboa, Adriano C.; Martins, A. X. Universidade Federal de Minas Gerais, Brazil

AUTHORS INDEX

Afonso, Leonardo D. PD6.4.....	80	PC1.14.....	48	PC8.6.....	60
Ahagon, Akira PC5.15.....	55	Antonio, Savini PC7.9.....	58	Barzegaran, M. PB3.15.....	29
Ahn, Han-Woong PA11.14.....	21	Antonopoulos, Christos PB7.5.....	35	Bastos, João Pedro PA4.8.....	7
Ahn, Ho-Jin PB10.6.....	41	PD4.10.....	77	Bastos, João Pedro Assumpção PA9.10.....	17
PB10.9.....	41	Antonopoulos, Christos S. PD8.12.....	85	PA9.8.....	17
Ahn, Hyun-Mo PC2.7.....	49	Ardon, Vincent PA12.9.....	22	PB4.14.....	30
PD6.8.....	80	Arjona Lopez, Marco A PC9.12.....	62	PD1.14.....	70
Ahn, Ji-hun PC6.10.....	56	Arkio, Antero OB2.1.....	35	Batistela, Nelson Jhoe PA4.8.....	7
PC6.9.....	56	PA3.8.....	5	PB4.14.....	30
Akagi, Akira PA4.12.....	8	PA3.9.....	6	Baudrand, Henri PC9.1.....	61
Akin, Bilal PB2.9.....	26	Arnulf, Kost PA9.8.....	17	Bauernfeind, Thomas PA7.15.....	14
Albanese, R. PC12.5.....	67	Asai, Yasuyoshi PC8.12.....	60	Beddek, Karim PD7.9.....	83
Albert, Jan PC11.14.....	65	Assimonis, Stylianos PB7.5.....	35	Belahcen, Anouar OB2.1.....	35
PC11.18.....	65	Assimonis, Stylianos D. PD8.12.....	85	PD1.10.....	70
PD2.14.....	72	Aubertin, Mathieu PC3.11.....	51	Ben Ayed, Ramzi PB1.8.....	25
Alloui, Lotfi PD4.11.....	77	Auchmann, Bernhard PA10.4.....	18	PB5.10.....	32
Almaguer, Hugo Armando Dominguez PD7.3.....	82	Baek, Myung Ki PC8.9.....	60	PD9.6.....	86
Almeida, Antônio PD8.9.....	84	Bahadorzadeh, Mehdi PB7.13.....	36	Benabou, Abdelkader PD1.14.....	70
Alotto, Piergiorgio PB5.4.....	31	Bai, Baodong PC12.13.....	68	PD7.9.....	83
PB9.5.....	39	Bai, Jingang PB8.8.....	38	Benhamouche, Mehdi PB7.4.....	35
PB9.7.....	39	Baldassari, Peter PB9.10.....	39	Beniakar, Minos PB9.4.....	39
PC4.6.....	52	PD1.3.....	69	Beniakar, Minos E. PD4.8.....	76
PD2.2.....	71	Baldini, Mario PC9.10.....	62	Benko, Peter Tamas PD8.11.....	85
PD6.4.....	80	Bandlow, Bastian PC1.15.....	48	Berbecea, Alexandru Claud PB1.14.....	25
Alves, Marco Antonio Robert PB12.2.....	44	Bandlow, Bastian, Schuhmann, Rolf OB1.2.....	24	Berbecea, Alexandru Claudiu PD9.6.....	86
Alves, Savio PC5.4.....	54	Bang, Yuan PB10.5.....	41	Berger, Kévin PB11.14.....	44
Amara, Yacine PA2.7.....	4	Bannwarth, B., Chadebec, Olivier PD2.13.....	72	Bernard, Laurent PB7.4.....	35
PC7.3.....	58	Banucu, Remus PC11.14.....	65	PD4.11.....	77
Amaral, Matheus H. PD8.3.....	84	PC11.18.....	65	Bernat, Jakub PA3.4.....	5
Amoiralis, Eleftherios PD6.3.....	80	PD2.14.....	72	Berndt, Olaf PB3.12.....	28
An, Siguang OD1.1.....	69	Barakat, Georges PA2.7.....	4	Bi, Chao PA11.3.....	20
Anderson, Philip OC1.2.....	46	PC7.3.....	58	Bian, Li PB1.5.....	24
Andjelic, Zoran PC3.6.....	50	Barglik, Jerzy PC8.7.....	60	Bigeon, Jean PD3.2.....	74
PC3.7.....	50	Bartel, Andreas OD2.2.....	81	Bilicz, Sandor PA10.12.....	19
Anna, Pichiecchio PC7.9.....	58			PA10.13.....	19
Ansari Oghol Beig, Davood				Binder, Andreas	

PD5.2	78
Biro, O.	
PA9.1	16
Biro, Oszkar	
PA7.15	14
PD6.12	81
Bíró, Oszkár	
PA5.15	10
PA6.9	11
Bischof, Christian	
PD2.8	72
Bisset, Stephane	
PB5.10	32
Bizard, Cyrille	
PD8.2	84
Boesing, Matthias	
PC2.3	48
Böhmer, Stefan	
PD2.8	72
Boileau, Thierry	
PA7.7	13
Bonadiman, Mateus	
PB12.2	44
Bora, Teodoro	
PD6.5	80
Bora, Teodoro C.	
PD3.12	75
Borges, Thiago Henrique	
PB11.15	44
Bormann, Dierk	
PA6.13	12
Bottauscio, Oriano	
OB2.1	35
PA1.4	1
PC4.4	52
Bouillault, Frédéric	
PD4.11	77
PD4.3	76
Bouzianas, George	
PD4.10	77
Bracikowski, Nicolas	
PC12.14	68
Breda, Dimitri	
PC4.10	53
Bretas, Arturo Suman	
PB11.5	43
Brisset, Stephane	
PB1.8	25
Brisset, Stéphane	
PD9.6	86
Brochet, Pascal	
PB1.14	25
PB5.10	32
PD9.6	86
Budnik, Krzysztof	
PA2.8	4
Burais, Noel	
PC7.11	59
PD8.14	85
Buret, François	
PC3.15	51
PC7.1	58
Burschäpers, Nicola	
OB1.2	24
Byun, Jin-Kyu	
PB7.7	36

PD2.12	72
PD9.4	86
Cacciola, Matteo	
PB11.6	43
Caillault, Bruno	
PD7.10	83
Calvano, F.	
PC12.5	67
Cao, Quanliang	
PB4.2	29
Cao, Ruiwu	
PB5.9	32
Cardona, Alberto	
PC8.10	60
Carlen, Martin	
PC11.21	66
Carpentier, Anthony	
PC7.14	59
Carpes Jr., Walter Pereira	
PB7.12	36
PD9.8	86
Carvalho, Alexandre Miguel de	
PD8.4	84
Carvalho, Rodrigo	
PD9.14	87
Cavallera, Didier	
PD7.10	83
Ceclan, Andrei	
PC11.17	65
Chadebec, Olivier	
PA12.9	22
PA9.2	16
PC12.16	68
PC5.3	54
PC7.5	58
PD7.10	83
Chai, Jianyun	
PB2.11	27
Chai, Seung-Hee	
PD5.9	78
Chailloux, Thibaut	
PD1.7	70
PD1.8	70
Chan, Tze-Fun	
PA3.11	6
PA8.10	15
Chang, Chia-Ming	
PB1.9	25
Chang, Jung Hwan	
PB6.14	34
Chau, K. T.	
PB11.3	42
PB4.11	30
PB4.8	30
PB5.9	32
Chen, Chao	
PA6.9	11
Chen, Genlong	
PD2.3	71
Chen, Haiyan	
PD6.7	80
Chen, Hao	
PA3.13	6
PA3.16	6
PA3.17	6
PA4.10	8

Chen, Ji	
PA1.11	2
PA6.5	11
Chen, Jiangbo	
PC8.5	60
Chen, Jiaxin	
PB8.1	37
Chen, Junqing	
PD2.3	71
Chen, Ningning	
PA11.15	21
PA5.8	9
PD2.1	71
PD3.10	75
PD3.11	75
Chen, Peilong	
PB11.11	43
Chen, Qian	
PA11.12	21
PB9.2	39
Chen, Tanggong	
PB9.14	40
Chen, Xiaoming	
PA9.3	16
PB1.13	25
PC12.1	66
Chen, Xiao-Yuan	
PA12.11	22
PC4.9	53
Chen, Y.	
PA9.1	16
Chen, Yong	
PA5.1	8
Chen, Zhe	
PA3.13	6
Chen, Zhenmao	
PA10.5	18
PA5.12	10
PD3.1	74
Cheng, K. W. E.	
PC11.13	65
Cheng, Ka Wai Eric	
PA4.7	7
Cheng, M.	
PB11.3	42
Cheng, Ming	
PA11.10	20
PA11.2	19
PA11.4	20
PA11.8	20
PA11.9	20
PB2.5	26
PB5.9	32
Cheng, Zhiguang	
PA6.10	11
PA6.11	11
PB8.11	38
PB8.12	38
Chiampi, Mario	
OB2.1	35
PC4.4	52
Cho, Gyu-Won	
PB10.6	41
PB10.7	41
PB10.9	41
Cho, Han-Wook	

PC10.3	63	Chung, Tae-Kyung		da Silva Jr., Pedro A.	
PC6.15	57	PD9.4	86	PD4.13	77
Cho, Ju-Hee		Chung, Young-Seek		Dal Mut, G.	
PC8.13	61	PB7.7	36	PC12.5	67
Cho, Su-gil		Ciric, Ioan R.		D'Amore, Marcello	
PD3.5	74	PA5.6	9	PB7.2	35
Cho, SuYeon		Ciuprina, Gabriela		Dang, Fei	
PC10.6	63	PA9.13	17	PB12.10	45
Cho, Su-Yeon		Classen, Christoph		Dang, Vuong Q.	
PC6.14	57	PC1.15	48	PC11.23	66
Cho, Yun-Hyun		Clavel, Edith		Daniel, Laurent	
PA11.13	21	PB11.14	44	PC12.6	67
PB2.7	26	Clemens, Markus		PD4.3	76
PC12.8	67	OD2.2	81	Dantas, Mario Antonio Ribeiro	
PC6.3	55	PC7.2	58	PA9.10	17
PC6.7	56	PD8.13	85	Dauge, Monique	
PD5.3	78	Clenet, Stephane		PC3.15	51
Choi, Charles T. M.		PD7.9	83	PC7.1	58
PB8.13	38	Cl��net, St��phane		de Cecco, Eric	
PB8.4	37	PC3.9	51	PD5.11	79
PB8.5	37	Coco, Salvatore		De Doncker, Rik W.	
Choi, Da-Woon		PD9.12	87	PC2.3	48
PC6.3	55	Coelho, Leandro dos S.		De Gersem, Herbert	
PC6.7	56	PD1.15	70	OC1.1	46
Choi, Jang-Young		PD3.12	75	PC2.4	48
PA12.4	22	PD4.1	76	PC8.6	60
PB6.10	34	PD9.1	85	De Santis, Valerio	
PC10.11	64	Coelho, Leandro Dos Santos		PB7.2	35
PC10.7	63	PD6.5	80	PB7.8	36
PC6.10	56	Coppoli, Eduardo Henrique Da Rocha		Dekeyser, Jean-Luc	
PC6.11	56	PC5.5	54	PD2.10	72
PC6.13	57	Corcolle, Romain		Delinchant, Benoit	
PC6.15	57	PC12.6	67	PC12.16	68
PC6.2	55	Costa e Silva, Marsil de A.		PC7.5	58
PC6.8	56	PD1.15	70	PD2.13	72
PC6.9	56	Costa e Silva1, Marsil de A.		PD2.9	72
PD6.13	81	PD9.1	85	PD3.6	74
PD9.2	86	Costan, Valentin		Delinchant, Beno��t	
Choi, Ji-hwan		PD7.9	83	PC12.2	66
PC10.14	64	Coulomb, Jean-Louis		Demenko, Andrzej	
PC10.5	63	PC12.16	68	PC4.1	52
Choi, Jong-Ho		PC12.2	66	Deng, Hao	
PA12.12	22	PC5.3	54	PB8.1	37
PA7.12	14	PC7.5	58	Di Barba, Paolo	
PA7.13	14	PD2.13	72	PB9.9	39
PD9.13	87	PD3.6	74	PC7.9	58
Choi, Kyung		PD7.10	83	PD2.7	71
PD6.1	79	Cramer, Tim		Dias, Guilherme Alfredo D.	
Choi, Myung Jun		PD2.8	72	PB11.5	43
PA8.7	15	Creus��, Emmanuel		Dickmann, Stefan	
Choi, Nak-Sun		PC3.10	51	PD8.13	85
PA7.1	12	Crozier, Stuart		Dimitriadis, Alexandros	
PB7.7	36	PA2.4	3	PD4.9	77
PD2.12	72	PA2.5	4	Ding, Qian	
Chong, J. K.		Cruciani, Silvano		PB6.5	33
PA7.9	13	PB7.8	36	Ding, Shichuan	
Chu, Jianfeng		Cui, Tao		PB11.3	42
PB8.6	37	PD2.3	71	Ding, Tongyu	
Chun, Hyun Ju		Cui, Xiang		PB7.11	36
PC5.6	54	PA10.10	18	Ding, Wen	
Chung, Hyun Ju		PA10.8	18	PA3.14	6
PC1.7	47	PA10.9	18	PA3.6	5
Chung, Hyun-Ju		Czerwinski, Dariusz		PB12.10	45
PA7.1	12	PD4.4	76	Djerdir, Abdesslem	
Chung, Si-Uk		da Luz, Mauricio V. Ferreira		PB2.14	27
PD5.6	78	PD4.13	77	PD5.5	78

Dlala, Emad	
OB2.1.....	35
Doi, Yuhito	
PA4.12.....	8
Dolezel, Ivo	
PC8.2.....	59
PC8.7.....	60
Dong, Guoya	
PC3.3.....	50
Dong, Jianning	
PA3.10.....	6
PA8.4.....	14
Dong, Jinyu	
PB3.2.....	27
Dorrell, David	
PB10.10.....	41
PB10.11.....	41
Dos Santos Coelho, Leandro	
PB5.4.....	31
PB9.3.....	39
PB9.5.....	39
PD6.4.....	80
Douine, Bruno	
PD7.15.....	83
Driesen, Johan	
PD2.11.....	72
Drissaoui, Mohammed Amine	
PC1.11.....	47
Drissi, Khalil El Khamlichi	
PB10.3.....	40
Du Peloux, Bertrand	
PD3.6.....	74
Du, Jinhua	
PA11.1.....	19
PA8.15.....	16
Du, Zhiye	
PC1.10.....	47
PC1.9.....	47
Duan, Nana	
PD6.2.....	80
Ducharne, Benjamin	
PD1.11.....	70
Dughiero, Fabrizio	
PB4.13.....	30
PB9.9.....	39
Dular, Patrick	
OC2.2.....	57
PB8.2.....	37
PC11.23.....	66
PC11.24.....	66
PC3.15.....	51
PC7.1.....	58
PC7.12.....	59
PD4.14.....	77
Dupré, Luc	
PA3.2.....	5
Ebrahimi, Bashir Mahdi	
PB2.10.....	26
PB2.8.....	26
PB2.9.....	26
PD5.14.....	79
Ebrahimi, Hassan	
PD7.4.....	82
Eckert, Paulo Roberto	
PC1.8.....	47
PD5.7.....	78

Eguchi, Keisuke	
PA8.9.....	15
El Ouardi, Abdessamad	
PD8.13.....	85
El-Kurdi, Yousef	
PC1.1.....	46
Enami, Kakeru	
PA1.1.....	1
Enokizono, Masato	
PA6.6.....	11
PA8.9.....	15
PC9.6.....	62
PC9.7.....	62
PD7.13.....	83
Espindola, Aleandro Amauri	
PA4.8.....	7
Esseni, David	
PC4.10.....	53
Eyng, Juliana	
PA9.10.....	17
Facco, Werley Gomes	
PB7.1.....	35
PC1.12.....	47
PC1.13.....	47
Fahimi, Babak	
PA11.11.....	21
Faiz, Jawad	
PB2.10.....	26
PB2.8.....	26
PB2.9.....	26
PD5.14.....	79
Fan, Y.	
PB8.11.....	38
Fang, Liang	
PD5.4.....	78
Fang, Shuhua	
PB4.3.....	29
PC5.12.....	55
Fang, Youtong	
PA3.15.....	6
Farooq, Jawad-Ahmed	
PB2.14.....	27
Farzamand, Ashkan	
PB2.10.....	26
Feliachi, Mouloud	
PD7.8.....	83
Feliziani, Mauro	
PB7.2.....	35
PB7.8.....	36
Feng, Shi	
PA6.5.....	11
Feng, Yaojing	
PB2.4.....	26
Ferber, Moises	
PD8.10.....	85
Fernández, David M.	
OA2.2.....	12
PA9.12.....	17
Ferraioli, F.	
PC12.5.....	67
PD6.11.....	81
Ferreira da Luz, Mauricio V.	
PC11.24.....	66
PC7.12.....	59
Ferreira da Luz, Mauricio Valencia	
PB8.2.....	37

Ferreira da Luz, Mauricio Valencia	
PB4.14.....	30
PB8.9.....	38
Ferreira Flores Filho, Aly	
PD5.7.....	78
Ferrieux, Jean-Paul	
PD4.6.....	76
Fickenscher, Thomas Heinrich	
PB3.12.....	28
Firmino, Luciana	
PC9.10.....	62
PD8.9.....	84
Fischborn, Marcos	
PA9.10.....	17
Flores Filho, Aly Ferreira	
PC1.8.....	47
Fonseca, Alexandre Ramos	
PA1.8.....	2
Fontgalland, Glauco	
PC9.1.....	61
Forbes, Larry	
PA2.4.....	3
Forghani, Behzad	
PB8.11.....	38
Formisano, A.	
PC12.5.....	67
PD6.11.....	81
Formisano, Alessandro	
PB5.11.....	32
Forzan, Michele	
PB4.13.....	30
Fouladgar, Javad	
PC2.5.....	48
Franchino, Roger	
PA12.9.....	22
Franck, David	
PC3.12.....	51
Freschi, Fabio	
PC4.6.....	52
PC7.9.....	58
PD2.2.....	71
Friedli, Thomas	
PB11.2.....	42
Friedrich, Guy	
PC4.14.....	53
Fu, Jiahui	
PB3.11.....	28
Fu, Jia-Hui	
PA12.1.....	21
PB3.10.....	28
Fu, W. N.	
PC3.13.....	51
Fu, W. N.	
OB2.2.....	35
PA1.13.....	2
PA1.15.....	3
PA11.15.....	21
PA11.5.....	20
PA11.6.....	20
PA11.7.....	20
PA12.6.....	22
PA4.14.....	8
PA5.2.....	8
PA5.3.....	9
PA5.8.....	9
PA6.14.....	12

PA8.14	16	PA8.15	16	Goto, Akimor	
PB2.13	27	Gao, Xin		PB12.1	44
PB5.3	31	PC12.12	68	Gotoh, Yuji	
PC12.9	67	PC9.3	61	PA3.1	5
PC2.1	48	Gao, Yanhui		Greaves, Simon J.	
PC6.6	56	PC2.8	49	PB12.3	44
PC9.3	61	PC9.2	61	Gross, Warren J.	
PD3.10	75	PD7.4	82	OA2.2	12
PD3.11	75	PD7.5	82	PC1.1	46
PD7.12	83	Gazzana, Daniel da Silva		Grubisic, Stevan	
Fu, W.N.		PB11.5	43	PB7.12	36
PD2.1	71	Geier, Martin		Gu, Bon-Gwan	
Fu, Wei Nong		PC4.15	53	PD5.1	77
PA4.7	7	Gelagaev, Ratmir		Gu, Xuemai	
Fu, Weinong		PD2.11	72	PB3.11	28
PA12.13	23	Geng, Duyan		Guarnieri, Massimo	
PA5.11	10	PA4.15	8	PC4.6	52
PB8.1	37	Gerbaud, Laurent		PC8.11	60
Fu, Xinghe		PD2.9	72	Guédon, Stéphane	
PA8.13	15	Geuzaine, Christophe		PC9.4	61
Fu, Zhihong		OC2.2	57	Guerin, Christophe	
PA2.1	3	PA10.2	18	OA2.1	12
Fujisaki, Keisuk		PC11.12	65	PC7.14	59
PD4.2	76	PC11.23	66	Guerra, Fábio A.	
Fujisaki, Keisuke		PC11.24	66	PD4.1	76
PA1.10	2	PC7.10	58	Guibert, Arnaud	
PA2.14	4	PC7.11	59	PC5.3	54
PB3.5	28	PC7.12	59	Guichon, Jean-Michel	
Fujita, Masafumi		PC8.10	60	PA12.9	22
OD2.1	81	PD4.14	77	PA9.2	16
PA10.16	19	Giannacopoulos, Dennis D.		PC12.16	68
Fujita, Norihisa		OA2.2	12	Guizhi, Xu	
PA9.4	16	PA9.12	17	PC3.5	50
Fujita, Yuya		PC1.1	46	Guo, Hong	
PB3.6	28	PD2.5	71	PC8.1	59
Fujiwara, Koji		Gillon, Federic		Guo, Jian	
OD2.1	81	PB5.10	32	PB4.3	29
PA10.16	19	Gillon, Frederic		Guo, Lei	
PC3.6	50	PB9.15	40	PB5.15	33
PC5.15	55	PC12.14	68	PD3.3	74
PC5.9	54	Gillon, Frédéric		Guo, Yan	
PD7.7	82	PB1.14	25	PC3.4	50
Fujiwara, Osamu		PD9.6	86	Guo, Youguang	
PA2.6	4	Gizewski, Tomasz		PA3.10	6
Fukushima, Noriaki		PB9.1	38	PA6.7	11
PA3.3	5	PD4.4	76	PA9.3	16
Fukuzumi, Tetsuo		Glotic, Adnan		PB1.13	25
PA12.3	21	PD6.12	81	PB10.14	42
PC3.6	50	Go, Sung-Chul		PB5.12	32
Fulvia, Palesi		PC7.13	59	PB5.13	32
PC7.9	58	Godard, Pierre		PB5.14	33
Funieru, Bogdan		PB7.14	36	PB6.13	34
PD5.2	78	Goleman, Ryszard		PB8.1	37
Gabi, Yasmine		PB9.1	38	PB8.6	37
PD4.5	76	PD4.4	76	PC12.1	66
PD4.7	76	Gomes, Bruno N.		PD1.4	69
Gaignaire, Roman		PD9.14	87	PD1.5	69
PA10.2	18	Gong, Jinlin		PD6.2	80
Galopin, Nicolas		PB5.10	32	Guo, You-Guang	
PC12.2	66	Gong, Wensheng		PA12.11	22
Gan, Xuhui		PA11.12	21	Guo, You-Guang	
PC10.12	64	PB9.2	39	PB10.12	42
Gao, Cong		Goo, Cheol-Soo		Guo, You-Guang	
PA1.11	2	PC6.13	57	PB10.13	42
Gao, Lin		Goričan, Viktor		Guo, You-Guang	
PA11.1	19	PA5.10	9	PC4.9	53

Guo, You-Guang		PA8.14.....	16
PD3.15.....	75	PB2.13.....	27
Guoya, Dong		PB4.3.....	29
PC3.5.....	50	PC12.9.....	67
Guyomarc'h, Frédéric		PC2.1.....	48
PD2.10.....	72	PC3.13.....	51
Gyimothy, Szabolcs		PC5.12.....	55
PA10.12.....	19	PC6.6.....	56
PA10.13.....	19	PC9.3.....	61
Gyimóthy, Szabolcs		PD3.10.....	75
PD2.15.....	72	PD3.11.....	75
PD4.15.....	77	PD7.12.....	83
Gyselinck, Johan		Ho, S.L.	
OC2.2.....	57	PB5.3.....	31
PC11.12.....	65	PD2.1.....	71
Hadef, Mounir		Ho, Siu Lau	
PD5.5.....	78	OD1.1.....	69
Hadj-Hamou, Khaled		PA4.7.....	7
PD3.2.....	74	PB1.2.....	24
Hafner, Martin		PB1.3.....	24
PC3.12.....	51	PB1.6.....	25
PD2.8.....	72	Hoffmann, Sabina	
Hahn, Sung-Chin		PA10.4.....	18
PC2.7.....	49	Hollaus, Karl	
PD6.8.....	80	PC9.14.....	62
Haisen, Zhao		Homrich, Roberto	
PB9.10.....	39	PC4.15.....	53
PD1.3.....	69	Hong, Do-Kwan	
Haitao, Yu		PB4.16.....	31
PB10.5.....	41	PB6.2.....	33
Hajime, Igarashi		PD5.15.....	79
PD6.9.....	80	PD5.6.....	78
Ham, SangHwan		Hong, Hyeoksoo	
PC10.6.....	63	PB1.11.....	25
Ham, Sang-Hwan		Hong, Jun	
PA11.14.....	21	PB8.10.....	38
PC6.14.....	57	Hong, Jungpyo	
Hameyer, Kay		PD5.13.....	79
PA1.9.....	2	Hong, Jung-Pyo	
PC3.12.....	51	PA3.12.....	6
PD2.8.....	72	PB1.15.....	25
Hamimid, Mourad		PB10.15.....	42
PD7.8.....	83	PB2.3.....	26
Hamler, Anton		PC10.13.....	64
PA5.10.....	9	PC10.15.....	65
PA9.6.....	16	PD3.14.....	75
Han, Bang-Woo		PD5.12.....	79
PB11.13.....	43	PD5.4.....	78
Han, Cheol		PD5.9.....	78
PC10.11.....	64	Hong, Sun-Ki	
Han, Sang-Chul		PC5.7.....	54
PC10.5.....	63	Hongbin, Wang	
Han, Tingyan		PC3.5.....	50
PC3.3.....	50	Hsieh, Min-Fu	
Hansen, Volkert		PB10.11.....	41
PD8.13.....	85	Hu, Minqiang	
Hantila, Florea I.		PB4.4.....	29
PA5.6.....	9	PB6.8.....	34
Hantila, Florea Ioan		PC6.4.....	56
PC11.22.....	66	Hu, Yong	
Hao, Xiacong		PC1.4.....	46
PC11.19.....	65	Hua, Wei	
Haraszczuk, Ryszard Grzegorz		PA11.2.....	19
PB12.8.....	45	PA11.8.....	20
Hashimoto, Eiichiro		PB2.5.....	26
PB4.1.....	29	Huang, F	
Hatsukade, Yoshimi			
PA7.3.....	13		
Haubrich, Hans-Jurgen			
PA2.8.....	4		
He, Bo			
PA1.2.....	1		
He, Jinliang			
PA10.11.....	19		
PA5.7.....	9		
PB3.8.....	28		
PC4.13.....	53		
PC9.13.....	62		
PD8.6.....	84		
He, Renjie			
PD3.3.....	74		
He, Wei			
PA5.14.....	10		
PB12.7.....	45		
He, Xunjun			
PB3.2.....	27		
Hecquet, Michel			
PC12.14.....	68		
PD6.15.....	81		
Hellman, Hannu-Pekka			
PA3.9.....	6		
Henneron, Thomas			
PC3.11.....	51		
PC3.9.....	51		
PD1.14.....	70		
Henrotte, François			
PA1.9.....	2		
Hernandez Flores, Concepcion			
PC9.12.....	62		
Hihat, Nabil			
PD2.7.....	71		
Hirata, Akimasa			
PA2.10.....	4		
PA2.6.....	4		
PD1.13.....	70		
Hirata, Katsuhiko			
PA4.3.....	7		
PA5.9.....	9		
PA7.6.....	13		
PB4.1.....	29		
PC12.7.....	67		
PC4.3.....	52		
PC8.12.....	60		
Hirata, Katuhiro			
PA6.12.....	11		
Ho, QuangViet			
PB10.16.....	42		
Ho, S. L.			
OB2.2.....	35		
PA1.13.....	2		
PA1.15.....	3		
PA11.15.....	21		
PA11.5.....	20		
PA11.6.....	20		
PA11.7.....	20		
PA12.6.....	22		
PA4.14.....	8		
PA5.11.....	10		
PA5.2.....	8		
PA5.3.....	9		
PA5.8.....	9		
PA6.14.....	12		

PA4.10	8	PA12.12	22	PA7.11	13
Huang, Guodong		Im, Jong-Bin		PB6.10	34
PC1.10	47	PA11.14	21	PC10.11	64
PC1.9	47	Im, Young-Hun		PC10.14	64
Huang, Lei		PC6.8	56	PC10.3	63
PB10.5	41	Ioan, Daniel		PC10.4	63
PC6.4	56	PA9.13	17	PC10.5	63
Huang, Wenmei		Ireland, David		PC10.7	63
PD1.9	70	PB3.1	27	PC6.10	56
Huang, Xueliang		PB5.2	31	PC6.11	56
PB6.12	34	Ishibashi, Kazuhisa		PC6.13	57
Huang, Yunkai		PC3.6	50	PC6.15	57
PA3.10	6	PC3.7	50	PC6.2	55
PA8.4	14	Ishihara, Yoshiyuki		PC6.8	56
PC3.1	50	OD2.1	81	PC6.9	56
Huang, Zhirong		PA10.16	19	PD6.13	81
PC12.12	68	PC3.6	50	PD9.2	86
Hughes, Jillian		PC5.9	54	Jang, Soon Myung	
PC11.21	66	PD7.7	82	PC2.10	49
Hur, Jin		Ishikawa, Seiji		PC2.12	49
PB10.1	40	PC9.7	62	Jang, Woo-Kyo	
PB10.2	40	Ishikawa, Takeo		PB2.3	26
PB6.7	34	PB1.4	24	Jang, Woo-Sung	
PC12.3	67	PB10.16	42	PB10.8	41
PD5.10	79	Ito, Hiroki		Janiszewski, Jorge Mieczyslaw	
Huynh, Van Khang		PC9.5	61	PA9.11	17
PA3.8	5	Ito, Yoshihiro		Janowski, Tadeusz	
PA3.9	6	PC4.7	52	PD4.4	76
Hwang, Chang-Chou		Itoh, Taku		Jansen, J.W.	
PA1.5	1	PA9.4	16	PC7.5	58
PA1.6	2	PC1.6	47	Jean, Bigeon	
PB1.9	25	PC5.13	55	PD3.4	74
Hwang, Kill		Itoh, Y.		Jeon, Kyung-Won	
PD8.7	84	PB7.6	36	PD6.8	80
Hwang, Seon-Ik		Iwashita, Takeshi		Jeon, Seong-Min	
PC6.8	56	PA10.16	19	PA3.12	6
Iamamura, Bruno		Jacobs, Ralf		Jeong, Geun-Young	
PA4.8	7	PA9.8	17	PC12.11	68
Igarashi, H		PB4.14	30	Jeong, Sang-Hyun	
PB7.6	36	Jacqmaer, Pieter		PB11.13	43
Igarashi, H.		PD2.11	72	Jeong, Sang-Sub	
PC5.8	54	Jahanbakht, Mohammad		PA7.11	13
Igarashi, Hajime		PB7.13	36	Jeong, Yeon-Ho	
OB1.1	24	Jahns, Thomas		PB4.16	31
PA7.3	13	PB1.7	25	Jesenik, Marko	
PC1.2	46	Jaindl, Michael		PA5.10	9
PC1.3	46	PB9.7	39	PA9.6	16
PC5.11	54	PD2.14	72	Jeung, Giwoo	
PC5.9	54	Jang, Dae Kyu		PA7.1	12
PC9.5	61	PB6.14	34	PB5.8	32
Iijima, Yosuke		Jang, IkSang		Ji, Feng	
PC5.11	54	PC10.6	63	PC3.2	50
Ikeda, Fumiaki		Jang, Ik-Sang		Ji, Jinghua	
PC5.15	55	PA11.14	21	PB4.15	31
Ikeuchi, Ryo		PC10.1	63	PB5.9	32
PD1.13	70	PC10.2	63	Ji, Seung-Hun	
Ikuno, Soichiro		Jang, Ik-Sang		PB10.8	41
PA9.4	16	PC10.8	64	Ji, Yongliang	
Ilea, Dan		Jang, Ki-Bong		PB12.7	45
PB1.14	25	PB10.6	41	Jiang, Chongxue	
PC12.14	68	PB10.7	41	PB4.4	29
Ilhan, Esin		PB10.8	41	PB6.8	34
PC11.16	65	PB10.9	41	Jiang, Hao	
Ilie, Cristina		Jang, Seok-Myeong		PB6.12	34
PD3.6	74	PA12.4	22	Jiang, Quan	
Im, Chang-Hwan		PA7.10	13	PA11.3	20

Jiang, Xiaohua	PC3.4 50	PC5.9..... 54	PB9.15..... 40
	PC8.5 60	Kamenj, Abelin	Khoury, Dirar S
Jiao, Chaoqun	PC12.12 68	PC7.10..... 58	PD3.3..... 74
	PC9.3 61	Kamitani, Atsushi	Kielhorn, Lars
Jiao, Fangjun	PB12.10 45	PA6.2 10	PC7.7 58
Jin, Chang-Sung	PC10.2 63	PC1.6 47	Kim, Bum-Hoon
	PC10.8 64	PC5.13..... 55	PC5.7 54
Jin, Jian-Xun	PA12.11 22	Kanai, Yasushi	Kim, Byeong-Woo
	PB10.12 42	PB12.3 44	PB10.2..... 40
	PB10.13 42	PB3.3 27	PC12.3..... 67
	PC4.9 53	Kanayama, Hiroshi	Kim, Byung-Taek
	PD3.15 75	PA1.1 1	PC8.13 61
Jin, Liang	PA4.13 8	PB7.3 35	Kim, Dae-Kyong
	PC8.3 59	Kang, Do-Hyun	PC8.13 61
Jin, Long	PA8.4 14	PD5.12 79	Kim, Do Jin
Jin, Ping	PB4.3 29	Kang, Dong Woo	PD5.4..... 78
	PC5.12 55	PC6.12..... 57	Kim, Dong-Hun
Jo, Chang-Hum	PC12.8 67	Kang, Dong-Woo	PA7.1..... 12
Joo, Daesuk	PC8.13 61	PC7.13..... 59	PB5.8..... 32
Joubert, Charles	PD1.7 70	Kang, Gyu Hong	PB7.7 36
	PD1.8 70	PB6.7 34	PD2.12..... 72
Ju, Kang	PA5.14 10	PD5.10 79	Kim, Dong-Wook
Jun, Myung Jin	PC2.15 50	Kang, Gyu-Hong	PB5.8..... 32
	PC6.1 55	PB10.1 40	Kim, Gyu-Tak
Jung, Hyun Kyo	PA8.12 15	PB10.2 40	PB10.6..... 41
Jung, Hyun-Kyo	PA12.12 22	PC12.3..... 67	PB10.7..... 41
	PA7.12 14	Kang, Jong Sung	PB10.8..... 41
	PA7.13 14	PA8.7 15	PB10.9..... 41
	PD9.13 87	Kantartzis, Nikolaos	Kim, H. J.
Jung, In Soung	PA8.12 15	PD4.10 77	PC8.8..... 60
Jung, In-Soung	PD5.1 77	PD4.9 77	Kim, Hea-Joong
	PD5.9 78	Kantartzis, Nikolaos V.	PB10.15..... 42
Jung, Jae-Woo	PA3.12 6	PD8.12 85	Kim, Hui Min
Jung, Sang-Yong	PB6.1 33	Karban, Pavel	PB12.5..... 44
	PB6.9 34	PC8.2..... 59	Kim, Hun Young
	PB9.11 40	Katagiri, Hirokatsu	PC2.14..... 49
	PC10.10 64	PA6.8 11	PC2.9..... 49
Jung, Snag Sik	PA7.1 12	Katsumasa, Miyata	Kim, Hyeong-Seok
Kaimori, Horoyuki	PA5.13 10	PD6.9 80	PB4.10..... 30
Kakikawa, Makiko	PB12.8 45	Kawaguchi, Hideki	PD6.1..... 79
Kakosimos, Panagiotis	PB2.2 26	PB3.6 28	PD9.4..... 86
Kameari, Akihisa	PC5.15 55	PC4.7..... 52	Kim, Hyung Kyu
		Kawaguchi, Yuki	PD5.10..... 79
		PA9.4 16	Kim, Hyung-Kyu
		Kawai, Hiroshi	PB10.2..... 40
		PC5.14..... 55	Kim, Hyung-Wook
		Kawano, Kenji	PB10.2..... 40
		PC5.11..... 54	Kim, Inhyun
		Kawase, Yoshihiro	PD7.2..... 82
		PA1.14 2	Kim, Jae-Hee
		PA5.9 9	PD8.8..... 84
		PA6.12 11	Kim, Jae-Hyuck
		PA6.8 11	PC7.13..... 59
		Ke, Wenjing	Kim, Je-Hoon
		PC10.12..... 64	PB11.13..... 43
		Kefalas, Themistoklis D.	Kim, Jeong-Man
		PA12.5 22	PC10.4..... 63
		Keiichi, Itoh	PC6.15..... 57
		PD6.9 80	Kim, Ji-Ho
		Khaled, Hadj-Hamou	PB4.5..... 29
		PD3.4 74	Kim, JinHo
		Khan, Hamid	PD8.7..... 84
		PB10.3 40	Kim, Jin-Ho
		Kheng, Tan Yen	PB11.13..... 43
		PB8.7 37	PD8.1..... 84
		Khliisa, Radhouane	Kim, Jin-Ho

PD8.8.....	84	PA7.4.....	13	PC8.2.....	59
Kim, Jong-Wook		Kitak, Peter		Kovacevic, Ivana	
PB9.11.....	40	PD6.12.....	81	PB11.2.....	42
Kim, Jung-Han		Kladas, Antonios		Koyama, Kazuya	
PB4.10.....	30	PB2.2.....	26	PB12.3.....	44
Kim, Ki-Chan		PB9.4.....	39	Koyama, Teruyoshi	
PB10.4.....	41	PD6.3.....	80	PA2.6.....	4
Kim, Koon-Tae		Kladas, Antonios G.		Koziel, Joanna	
PB4.10.....	30	PA12.5.....	22	PD4.4.....	76
PD6.1.....	79	PD4.8.....	76	Krähenbühl, Laurent	
Kim, Kwang-Soo		PD9.7.....	86	PC11.23.....	66
PC10.1.....	63	Klein, Carlos E.		PC11.24.....	66
Kim, Kwan-ho		PB9.5.....	39	PC3.15.....	51
PC10.14.....	64	Knight, Andrew		PC7.1.....	58
Kim, Kyoung Hoon		PB10.10.....	41	PC7.12.....	59
PC2.11.....	49	PB10.11.....	41	PD8.10.....	85
PC2.13.....	49	Ko, Jae-Hyeong		Kraikitrat, Kreansuk	
Kim, Kyung-Tae		PB4.10.....	30	PC2.2.....	48
PB10.1.....	40	PD6.1.....	79	Krebs, Guillaume	
Kim, Kyu-Seob		PD9.4.....	86	PC9.8.....	62
PC10.13.....	64	Ko, Kyoung-Jin		PD5.11.....	79
Kim, MiJung		PA12.4.....	22	Kudo, Nozomi	
PC10.6.....	63	PA7.10.....	13	PA12.3.....	21
Kim, Mi-Jung		PA7.11.....	13	Kuo-Peng, Patrick	
PC10.2.....	63	PC10.14.....	64	PB8.2.....	37
Kim, Mi-Jung		PC10.4.....	63	PB9.8.....	39
PC10.8.....	64	PC6.10.....	56	PC11.24.....	66
Kim, Min-Gyu		PC6.11.....	56	PC7.12.....	59
PB10.4.....	41	PC6.15.....	57	PD6.10.....	81
Kim, Min-Hyuk		PC6.9.....	56	Kuramochi, Satoshi	
PA12.12.....	22	PD6.13.....	81	PA2.2.....	3
PA7.12.....	14	PD9.2.....	86	PA3.3.....	5
PA7.13.....	14	Koch, Stephan		Kurita, Naoki	
Kim, Seokbeom		OC2.1.....	57	PD7.7.....	82
PB9.6.....	39	Koczka, G.		Kurita, Nobuyuki	
PC8.4.....	60	PA9.1.....	16	PB10.16.....	42
Kim, Sungil		Koczka, Gergely		Kwon, Byung il	
PD5.13.....	79	PA7.15.....	14	PB2.15.....	27
Kim, Sung-Il		Koestinger, Alice		Labie, Patrice	
PB2.3.....	26	PB9.7.....	39	PA12.9.....	22
Kim, Tae Woo		Koh, C. S.		Lai, Loi Lei	
PB6.14.....	34	PC10.9.....	64	PA3.11.....	6
Kim, Won-Ho		Koh, C.S.		PA8.10.....	15
PC10.1.....	63	OD1.2.....	69	Lalas, Antonios X.	
PC10.2.....	63	PD6.14.....	81	PD8.12.....	85
PC10.8.....	64	PD7.2.....	82	Lambert, Marc	
Kim, Yong-Jae		PD7.6.....	82	PA10.12.....	19
PC10.10.....	64	Kolar, Johann		PA10.13.....	19
Kim, Young Kyouun		PB11.2.....	42	Lambert, Nancy	
PD5.1.....	77	Komalasari, Endah		PA1.2.....	1
Kim, Young Kyun		PA1.1.....	1	Lambert, Nancy	
PA8.12.....	15	Komarzyniec, Grzegorz		PD1.2.....	69
Kim, Young Sun		PD4.4.....	76	Lambrechts, Johanthan	
PA12.15.....	23	Komez, Krzysztof		PC7.10.....	58
Kim, Youngkyoun		PD2.7.....	71	Lanfranchi, Vincent	
PD5.13.....	79	Koo, Dae-Hyun		PC4.14.....	53
Kim, Young-Kyoun		PB4.16.....	31	PD6.15.....	81
PC10.13.....	64	PD5.12.....	79	Lange, Enno	
PD5.9.....	78	PD5.15.....	79	PA1.9.....	2
Kimoulakis, Nikolaos		Koo, Min-Mo		PD2.8.....	72
PB2.2.....	26	PC10.7.....	63	Laskaris, Konstantinos I.	
Kimura, Yoshihiro		Kook, Junghwan		PD9.7.....	86
PA7.4.....	13	PD6.6.....	80	Laudani, Antonino	
Kiss, Imre		Kost, Arnulf		PD9.12.....	87
PD2.15.....	72	PB4.14.....	30	Laura, Picheral	
Kitagawa, Wataru		Kotlan, Vaclav		PD3.4.....	74

Lavers, J. D.		PB6.7.....	34
PB1.13	25	PD5.10.....	79
Lavers, J. Douglas		Lee, Sung-Ho	
PB5.12	32	PA7.10.....	13
Lavers, J.D.		PC10.7.....	63
PC12.1	66	PC6.10.....	56
Lazar, Ioan-Alexandru		PC6.8.....	56
PA9.13	17	PD9.2.....	86
Le Bihan, Yann		Lee, Tae Hee	
PC9.8	62	PD3.5.....	74
Le Floch, Yann		Lee, Yong-Bok	
PA10.14	19	PC10.11.....	64
PA12.9	22	PC10.14.....	64
Le Menach, Yvonnick		PC6.9.....	56
PC3.10	51	Lefevre, Yvan	
PC3.8	51	PA4.5.....	7
PD2.10	72	Lei, Gang	
PD7.9.....	83	PB5.12.....	32
Lebensztajn, Luiz		PB5.13.....	32
PB4.6	29	PB5.14.....	33
PC5.3	54	PB6.13.....	34
PD3.12	75	PC12.1.....	66
PD6.5	80	Leite, Jean Viane	
PD9.1.....	85	PB8.2.....	37
Leber, G.		PD1.15.....	70
PA9.1	16	PD4.1.....	76
Leboeuf, Nicolas		PD4.13.....	77
PA7.7	13	Lelong, Thomas	
Lecointe, Jean-Philippe		PD8.14.....	85
PD2.7	71	Lesselier, Dominique	
Le-Duc, Tung		PB7.4.....	35
PC12.16	68	Leveque, Jean	
Lee, Byeong Do		PD4.11.....	77
PC2.15	50	PD7.15.....	83
PC6.1	55	Lewis, Andrew	
Lee, Byeong Du		PB5.2.....	31
PC2.10	49	Li Yongjian	
PC2.14	49	PC12.10.....	67
PC2.6	48	Li, Baotong	
Lee, Byeong-Hwa		PB8.10.....	38
PB10.15	42	Li, Bing	
PC10.13	64	PA5.14.....	10
Lee, Chany		Li, Bo	
PA7.12	14	PC3.2.....	50
PA7.13	14	Li, Cuihuan	
Lee, Dongsu		PA9.15.....	17
PB9.11	40	Li, Erping	
PC10.10	64	PB3.14.....	29
Lee, Geunho		Li, H. L.	
PD5.13	79	OB2.2	35
Lee, Ho Joon		PA1.15.....	3
PC6.12	57	PA11.5.....	20
Lee, Ho-Young		PA5.11.....	10
PC12.11	68	PA5.2.....	8
Lee, Hyang-Beom		Li, Haibo	
PB4.5	29	PB10.14.....	42
PC1.7	47	Li, Heming	
PD2.12	72	PB6.4.....	33
Lee, Hyung-Woo		Li, Jian	
PC6.14	57	PC12.8.....	67
PC7.13	59	PC6.3.....	55
Lee, Jae-Jun		PC6.7.....	56
PC10.1	63	PD5.3.....	78
PC10.2	63	Li, Jiangui	
Lee, Jae-Min		PB4.11.....	30
PB10.15	42	PB4.8.....	30
Lee, Jangwon			
PD6.6	80		
PD9.3	86		
Lee, Je-Kwang			
PD6.1	79		
Lee, Jeong-Jong			
PD5.9	78		
Lee, Jin-Fa			
PC1.14.....	48		
Lee, Ji-Young			
PB6.2	33		
PD5.12	79		
PD5.6	78		
Lee, Ju			
PA11.14	21		
PC10.1.....	63		
PC10.2.....	63		
PC10.6.....	63		
PC10.8.....	64		
PC6.12.....	57		
PC6.14.....	57		
PC7.13.....	59		
Lee, Jung Ho			
PC2.10.....	49		
PC2.11.....	49		
PC2.12.....	49		
PC2.13.....	49		
PC2.14.....	49		
PC2.15.....	50		
PC2.6.....	48		
PC2.9.....	49		
PC6.1.....	55		
Lee, Jung-Hun			
PD8.1	84		
Lee, Ki-Chang			
PB4.16	31		
Lee, Ki-Doek			
PC10.1.....	63		
PC10.2.....	63		
PC10.8.....	64		
Lee, Kyoung-Bok			
PC10.3.....	63		
PC10.4.....	63		
Lee, Min-Cheol			
PB4.16	31		
Lee, Minuk			
PD3.5	74		
Lee, Sang-Geon			
PA11.13	21		
PB2.7	26		
Lee, Sang-Ho			
PC10.15.....	65		
Lee, Se-Hee			
PA12.15	23		
PC12.11.....	68		
Lee, Seung Chul			
PC2.11.....	49		
PC2.12.....	49		
PC2.13.....	49		
PC2.9.....	49		
Lee, Seungho			
PB9.11	40		
PC10.10.....	64		
Lee, Su-Jin			
PB2.3	26		
Lee, Sun Kwon			

Li, Jianjun		PC8.3.....	59
PA8.11.....	15	Liu, T.	
PA8.8.....	15	PB8.11.....	38
PC8.14.....	61	Liu, Xiquan	
PC8.15.....	61	PB4.9.....	30
Li, Jianwei		Liu, Yang	
PA6.3.....	10	PD4.12.....	77
Li, Jingjing		Liu, Yuanqing	
PB3.7.....	28	PA12.14.....	23
Li, Jinzhong		PB8.3.....	37
PC3.2.....	50	Lomonova, Elena	
Li, Juan		PC11.16.....	65
PB1.1.....	24	PC7.5.....	58
Li, Lewei		Lotfi Neyestanak, Abbas Ali	
PB3.2.....	27	PB7.13.....	36
Li, Le-Wei		Lou, Jianyong	
PA12.1.....	21	PB12.10.....	45
Li, Liang		Lowther, David	
PB4.2.....	29	PB9.12.....	40
Li, Lin		PD2.6.....	71
PA6.10.....	11	PD3.9.....	75
PC3.2.....	50	Lu, Jiayu	
Li, Min		PA12.14.....	23
PB9.12.....	40	Lu, Jun Wei	
Li, Ping-Lun		PB5.2.....	31
PA1.6.....	2	Lu, Junwei	
Li, Ruihai		PA1.16.....	3
PC9.13.....	62	PA4.11.....	8
Li, Wanlu		PA4.9.....	7
PB3.11.....	28	PA6.10.....	11
Li, Wei		PB11.7.....	43
OD1.2.....	69	PD8.5.....	84
PA10.11.....	19	Lu, Qinfen	
PA5.7.....	9	PA3.15.....	6
PC10.9.....	64	Lu, S	
PD7.2.....	82	PA3.17.....	6
Li, Wenping		Lu, Shengli	
PC3.2.....	50	PA3.13.....	6
Li, Xin		Lu, Tiebing	
PA2.3.....	3	PA10.10.....	18
Li, Yanming		PA10.8.....	18
PC8.1.....	59	PA10.9.....	18
Li, Ying		PA6.10.....	11
PA9.14.....	17	Lu, Weifu	
PB5.15.....	33	PA8.5.....	15
PD3.3.....	74	Luan, Feng	
Li, Yong		PA12.12.....	22
PA7.8.....	13	PA7.12.....	14
PD3.1.....	74	PA7.13.....	14
Li, Yongjian		PD9.13.....	87
PB6.13.....	34	Lubin, Thierry	
PD1.4.....	69	PD7.15.....	83
PD1.5.....	69	Luo, Haijun	
Li, Zhen		PA5.14.....	10
PB3.8.....	28	Luo, Qun	
Li, Zhiyuan		PB11.12.....	43
PA7.5.....	13	Luo, Yingli	
Liang, Deliang		PB6.4.....	33
PA11.1.....	19	Luo, Zhaonan	
PA8.15.....	16	PA10.10.....	18
Liang, dliang		PA10.8.....	18
PB12.10.....	45	PA10.9.....	18
Lim, J. S.		Lv, Dianli	
PA7.9.....	13	PC3.3.....	50
Lim, Sunghoon		Ma, Xikui	
PB1.15.....	25	PB5.1.....	31
Lim, W. H.			
PC8.8.....	60		
Lima, Naísses Zoia			
PA1.8.....	2		
PB7.1.....	35		
PC1.12.....	47		
Lima, Naísses Zóia			
PC1.13.....	47		
Lin, Chenjie			
PA11.11.....	21		
Lin, D.			
PB5.3.....	31		
Lin, Dingsheng			
PA1.2.....	1		
PA3.5.....	5		
PD1.2.....	69		
Lin, Heyun			
PA3.10.....	6		
PB4.3.....	29		
PC3.1.....	50		
PC5.12.....	55		
Lin, Hsiu-Ying			
PA1.5.....	1		
Lin, Mingyao			
PA2.3.....	3		
Lin, X.			
PB5.3.....	31		
Lin, Yuesheng			
PD1.5.....	69		
Lin, Zhi Wei			
PB8.6.....	37		
Lin, Zhiwei			
PD1.4.....	69		
PD1.5.....	69		
Lipo, Thomas Anthony			
PB2.15.....	27		
Lisboa, Adriano C.			
PD9.14.....	87		
Lisboa, Adriano Chaves			
PC1.13.....	47		
Liu, Cheng-Tsung			
PA1.5.....	1		
PA1.6.....	2		
PB1.9.....	25		
Liu, Fugui			
PA6.11.....	11		
PB8.12.....	38		
Liu, Gang			
PC3.2.....	50		
Liu, Guohai			
PA11.12.....	21		
PB9.2.....	39		
Liu, Jianfei			
PB4.7.....	30		
Liu, L.			
PB8.11.....	38		
Liu, Lei			
PC9.13.....	62		
Liu, Mingji			
PB6.4.....	33		
Liu, Ping			
PB4.7.....	30		
Liu, Shili			
PA2.13.....	4		
Liu, Suzhen			
PA4.13.....	8		

Machado, Vitor Maló	PA10.15	19	PA5.13	10
PA6.1	PB11.15	44	PA6.4	10
Machczynski, Wojciech	Mazhoud, Issam		Miyamoto, Masaki	
PA2.8	PD3.2	74	PD1.6	70
Maeda, Shuhei	Mazzucco, Gianluca		Miyauchi, Takenori	
PA7.6	PC8.11	60	PA1.17	3
Magele, Christian	McGary, John		Moenig, Wolfgang	
PB3.9	PA6.5	11	PC11.21	66
PB9.7	Megali, Giuseppe		Moghnieh, Hussein	
PD2.14	PB11.6	43	PD2.6	71
Magne, Isabelle	Mehri Dehnavi, Maryam		Mohammed, Osama	
PD8.14	OA2.2	12	PB3.15	29
Magri, Vanessa Przybylski Ribeiro	PA9.12	17	PC7.6	58
PB12.2	Meibody-Tabar, Farid		Mohan, Ananda S.	
Maier, Stefan	PA7.7	13	PB11.8	43
PA7.15	Mekideche, Mohamed		Mohr, Martin	
Majorana, Carmelo	PD5.5	78	PA5.15	10
PC8.11	Meng, Fan-Yi		Moirata, Shinya	
60	PB3.10	28	PD1.13	70
Makimura, H.	Meng, Lichan		Mokhtari, Lounes	
PB7.6	PA4.7	7	PC12.16	68
36	Meng, Xiangjun		Mologni, Juliano Fujioka	
Manzin, Alessandra	PD6.2	80	PB12.2	44
PA1.4	Mesmin, Fanny		Morabito, Francesco Carlo	
1	PB11.9	43	PB11.6	43
Marchand, Claude	Mesquita, Renato C.		Moreau, Olivier	
PD5.11	PB7.15	37	PC12.15	68
79	Mesquita, Renato Cardoso		PD7.9	83
Maréchal, Yves	PA1.8	2	Moreira, Fernando J. S.	
PC9.4	PC1.12	47	PB7.15	37
61	PC5.5	54	Morel, Laurent	
María Evelina, Mognaschi	Meunier, Gerard		PC7.11	59
PC7.9	PC12.16	68	PD1.7	70
58	PC5.2	53	PD1.8	70
Maricar, Mihai	Meunier, Gérard		Morita, Masatsugu	
PA5.6	OA2.1	12	PA12.3	21
9	PA9.2	16	Moro, Federico	
Marignetti, F.	PD4.6	76	PC4.11	53
PC12.5	Mezani, Smail		PC4.6	52
67	PC7.10	58	PC8.11	60
Marinescu, Stelian	Mezani, Smail		Moses, Anthony John	
PA5.6	PD7.15	83	OC1.2	46
9	Miliani, El-Hadj		Motoasca, Emilia	
Martin, Christian	PB10.3	40	PC11.16	65
PD1.7	Mimoune, Sourì		Motta, Claudio Costa	
70	PD4.11	77	PC7.15	59
PD1.8	Mimoune, Sourì Mohamed		Moura, Alex Sander	
70	PD7.8	83	PB7.1	35
Martins Osório, Jonas Obert	Min, Seungjae		PC1.12	47
PD5.7	PB1.15	25	PC1.13	47
78	PD3.14	75	Mu, Shujun	
Martins, A. X.	Mininger, Xavier		PB2.11	27
PD9.14	PD4.3	76	Muetze, Annette	
87	PD8.2	84	PC2.4	48
Martins, Olivier	Minqiang, Hu		Muller, Juliana Luisa	
PC9.4	PB10.5	41	PD1.14	70
61	Mipo, Jean-Claude		Muramatsu, Kazuhiro	
Martone, R.	PC3.11	51	PC2.8	49
PC12.5	Miraoui, Abdellati		PD7.4	82
67	PB2.14	27	PD7.5	82
PD6.11	Miraoui, Abdellatif		Muraoka, Hiroaki	
81	PD5.5	78	PB12.3	44
Martone, Raffaele	Mirzaei, Mehran		Murayama, Toshio	
PB5.11	PD5.2	78	PB7.9	36
32	Miyagi, Daisuke		Murotani, Kohei	
Mastuo, Tetsuji	PA4.12	8	PC5.14	55
PD1.6				
70				
Matsuhashi, Daiki				
PC2.8				
49				
Matsui, Nobuyuki				
PC5.13				
55				
Matsunami, Michio				
PB10.16				
42				
Matsuo, Yuhei				
PD7.5				
82				
Matsutomo, Shinya				
PA1.17				
3				
PC1.5				
46				
Maurizio, Repetto				
PC7.9				
58				
Mazauric, Vincent				
PA10.14				
19				
Mazauric, Vincent Georges				

Musing, Andreas	Niu, Shuangxia	PC12.15..... 68
PB11.2 42	OB2.2 35	Ouyang, Jun
Musy, François	PA1.15 3	PD3.9..... 75
PC1.11 47	PA11.15 21	Ovando Martinez, Roberto B B
Muto, Akira	PA11.5 20	PC9.12..... 62
PB7.9 36	PA11.6 20	P. de Farias, José Ewerton
Nabeta, Silvio	PA11.7 20	PC9.1..... 61
PC9.9 62	PA4.14 8	Pacheco, Joyson
Nadal, Clement	PA5.2 8	PC4.15 53
PA4.5 7	PA5.3 9	Paese, Evandro
Nafalski, Andrew	PA6.14 12	PC4.15..... 53
PA2.15 4	PA8.14 16	Pan, Xiao-Min
PB12.8 45	PB2.13 27	PA5.4..... 9
PB9.1 38	PC2.1..... 48	Pan, Yen-Lin
PD4.4 76	PC6.6..... 56	PA2.12..... 4
Nakahata, Yasushi	PD2.1 71	Panchal, Chirag
PD7.13 83	Niyonzima, Innocent	PD8.5..... 84
Nakahata, Yoshiki	PD4.14 77	Pang, Lingling
PA12.3 21	Noguchi, So	PA4.6..... 7
Nakamura, Masanori	PA1.17 3	PB9.14..... 40
PA1.14 2	PA7.3 13	Papadopoulos, Theseus G.
Nakano, Masanori	PC1.2..... 46	PB9.13..... 40
PA4.12 8	PC1.3..... 46	Park, Chang Soon
Nakano, Tomohito	PC1.5..... 46	PC10.9..... 64
PA1.14 2	PC8.4..... 60	Park, Doo-Hwan
Nakashima, Hiroshi	Nyland, Felipe	PB6.2..... 33
PA10.16 19	PD8.9 84	Park, Gwan Soo
Nakata, Susumu	Odawara, Shunya	PB12.5..... 44
PA9.4 16	PC9.2..... 61	PB12.6..... 44
Nam, Byoung-Uk	Ogbi, Abdellah	PC1.7 47
PB6.2 33	PC11.11..... 65	PC5.10..... 54
Napierska Juszczak, Ewa	Ogino, Masao	PC5.6..... 54
PD2.7 71	PA1.1 1	Park, Hun-Soo
N'diaye, Abdoul-Osmane	PB7.3 35	PC1.7 47
PD5.5 78	Oh, Sang-Heun	Park, Hyung-Il
Nejadpak, Arash	PD8.1 84	PD9.2..... 86
PC7.6 58	Oh, Yeon-Ho	Park, Il Han
Nemitz, Nicolas	PA7.9 13	PA12.15..... 23
PC12.15 68	PC2.7..... 49	PC8.9..... 60
PC3.10 51	PC8.8..... 60	Park, Ji-hoon
Neumayer, Markus	Ohtani, Tadao	PC10.3..... 63
PB5.6 32	PB3.3 27	PC6.2..... 55
PB5.7 32	Okamoto, Yoshifumi	Park, Jun-Kyu
Nguyen, Thu Trang	PB5.5 31	PC12.3..... 67
PD4.3 76	PC5.15..... 55	Park, Jun-Seok
Nguyen, Trung-Son	Okitsu, Takashi	PB4.10..... 30
PA9.2 16	PC2.8..... 49	Park, Kug-Nam
Ni, Guangzheng	Okoniewski, Michal	PD6.8..... 80
PB1.2 24	PB7.8 36	Park, Se-Myung
Ni, Peihong	Okutani, Tamio	PD8.1..... 84
OD1.1 69	PA12.3 21	Park, Seunggyun
Nicaise, Serge	Oleksiejuk, Boguslaw	PD3.14..... 75
PC3.10 51	PA2.15 4	Park, Sungkyung
Nicolas, Laurent	Orlando, Alberto	PC1.7 47
PC1.11 47	PC5.4..... 54	Park, Un-Hwan
PC11.11 65	Ostrowski, Joerg	PD8.1..... 84
PC7.11 59	PC7.7..... 58	Park, Young-Tae
Nicolet, Andre	Ota, Tomohiro	PC6.11..... 56
PB7.14 36	PA5.9 9	Park, Yu-seop
Nicomedes, Williams Lara	PA6.12 11	PB6.10..... 34
PB7.15 37	PC12.7..... 67	PC10.3..... 63
Niguchi, Noboru	PC8.12..... 60	PC10.4..... 63
PA4.3 7	Otake, Asuka	PC10.7..... 63
PC4.3 52	PA12.3 21	PC6.11..... 56
Nitto, Osamu	PA12.7 22	PC6.13..... 57
PD7.1 82	Ould-Rouis, Yacine	PC6.15..... 57

PC6.2	55	PC11.22.....	66	PC7.10.....	58
PD6.13	81	Pouzada, Eduardo Victor		Remy, Ghislain	
Paulides, Johan		PA9.11	17	PD3.2.....	74
PC11.16	65	Preda, Gabriel		PD3.4.....	74
Paussa, Alan		PC11.22.....	66	Ren H., Wang	
PC4.10	53	Preis, K.		PD1.3.....	69
Pavo, Jozsef		PA9.1	16	Ren, Da Qi	
PA10.12	19	Preis, Kurt		PD2.5.....	71
PA10.13	19	PA7.15	14	Ren, Zhuoxiang	
PD8.11	85	PD6.12	81	PA10.3.....	18
Pávó, József		Pulcini, Giuseppe		Ren, Ziyang	
PD2.15	72	PD9.12	87	PD6.14.....	81
PD4.15	77	Pusch, David		Renhart, Werner	
Pelissier, Valene		PC11.21.....	66	PB3.9.....	28
PC5.2	53	PC7.7.....	58	PB9.7.....	39
Pellerey, Pierre		Putek, Piotr Adam		Reu, Jin-Wook	
PC4.14	53	PD3.7	74	PC12.3.....	67
Pellicanò, Diego		PD3.8	75	Rezgui, Abir	
PB11.6	43	Qian, Hao		PD2.9.....	72
Peng, Tao		PC8.1.....	59	Rezzoug, Abderrezak	
PB4.2	29	Qiu, Jie		PD7.15.....	83
Peng, Zhen		PB10.14	42	Rhyu, Se Hyun	
PC1.14	48	PB8.6	37	PA8.12.....	15
Pengsheng, Su		PD6.2	80	Rhyu, Se-Hyun	
PA8.2	14	Qiu, Jinghui		PD5.9.....	78
Percebon, Leandro Alberto		PA12.2	21	Riganti Fulginei, Francesco	
PB12.2	44	Qiu, X		PD7.14.....	83
Pereira, Fabio Henrique		PA3.16	6	PD9.12.....	87
PC9.9	62	Qu, Hui		Rigoni, Mauricio	
Perrussel, Ronan		PA10.3	18	PB4.14.....	30
PB11.14	44	Quan, Li		Rinaldi, Vagner	
PC1.11	47	PB6.5	33	PC1.8.....	47
PC11.11	65	Radulescu, Mircea M.		Rochus, Véronique	
PC7.14	59	PB1.14	25	PC8.10.....	60
PD8.10	85	Rahimian, Mina		Rodrigues, Antonio Wendell de	
Peussa, Tommi		PD5.8	78	Oliveira	
PD1.10	70	Rahman, M. A.		PD2.10.....	72
Pham, Minh-Trien		PD1.2	69	Rodriguez, Eric	
OD1.2	69	Rainer, Siegfried		PC5.2.....	53
PD6.14	81	PC12.4.....	67	Roger, Jean-Yves	
Pham-Quang, Phuong		Raizer, Adroaldo		PD1.14.....	70
PC12.2	66	PD7.3	82	Rondot, Loic	
PD3.6.....	74	PD8.3	84	PA10.14.....	19
Phyu, Hla Nu		PD8.9	84	PC7.14.....	59
PA11.3	20	Ramdane, Brahim		Rondot, Loïc	
Pi, Wei-Chao		PC2.5.....	48	PA10.15.....	19
PA5.4	9	Rana, Md. Masud		PB11.15.....	44
Pichon, Lionel		PB11.8	43	Rossi, Mathieu	
PB7.4	35	Randewijk, Peter Jan		PD6.15.....	81
PD8.2	84	PC3.14.....	51	Rotaru, Mihai	
PD8.3	84	Rao, Liyun		PB8.7.....	37
Pigache, Francois		PD3.3	74	Ruan, Jiangjun	
PA4.5	7	Raulet, Marie Ange		PC1.10.....	47
Pihler, Joze		PD1.11	70	PC1.9.....	47
PD6.12	81	PD1.7	70	Ruangsinchaiwanich, Somporn	
Piriou, Francis		PD1.8	70	PC2.2.....	48
PC3.10	51	Reinauer, Veronika		Rubeck, Christophe	
PD1.14	70	PC11.14.....	65	PD2.13.....	72
PD8.14	85	PC11.18.....	65	Rubinacci, G.	
Piriou, François		PD2.14	72	PC12.5.....	67
PC3.11	51	Rekanos, Ioannis		Rucker, Wolfgang	
Poole, Michael		PD4.9	77	PC11.14.....	65
PA2.5	4	Rekanos, Ioannis T.		PC11.18.....	65
Poole, Michael Stephen		PB3.13	28	PD2.14.....	72
PA2.4	3	PB9.13	40	Russenschuck, Stephan	
Popa, Valentin		Remacle, Jean-François			

PA10.4	18
Ryu, Dong-Seok	
PB10.4	41
Ryu, GwangHyeon	
PC10.6	63
Ryu, Gwang-Hyeon	
PC6.14	57
Sabariego, Ruth	
PA10.2	18
PC11.12	65
PC7.11	59
PD1.11	70
Sabariego, Ruth V.	
OC2.2	57
PC11.23	66
PC11.24	66
PC7.12	59
PD4.14	77
Sadowski, Nelson	
PA4.8	7
PA9.10	17
PA9.8	17
PB4.14	30
PD4.13	77
Saito, Masahiko	
PA12.3	21
Saitoh, Ayumu	
PC1.6	47
PC5.13	55
Saldanha, Rodney R.	
PD9.14	87
Saldanha, Rodney Rezende	
PB7.1	35
PC1.13	47
Salon, Sheppard J.	
PC11.11	65
Salvini, Alessandro	
PD7.14	83
PD9.12	87
Samaey, Giovanni	
OC1.1	46
Sanchez Lopez, Hector	
PA2.4	3
Sanchez-Lopez, Hector	
PA2.5	4
Santandrea, Laurent	
PC9.8	62
Santos, Guilherme	
PB7.12	36
PD9.10	86
PD9.8	86
Sarikhani, Ali	
PB3.15	29
Sartori, Carlos	
PB11.14	44
PD8.10	85
Sartori, Carlos Antonio França	
PD8.4	84
Sato, Shuji	
PB5.5	31
PC5.15	55
Sato, Takeru	
PC9.6	62
Scheiblich, Christian	
PC11.14	65
PC11.18	65

PD2.14	72
Schlegel, Jean Paul	
PA4.8	7
Schmidt, Erich	
PA8.1	14
PA8.6	15
Schmidthäusler, Daniel	
PC7.2	58
Schneider, Hermann	
OC2.1	57
Schniedertoens, Thomas	
PC2.3	48
Schöberl, Joachim	
PC9.14	62
Schöps, Sebastian	
OD2.2	81
PC8.6	60
Schuhmann, Rolf	
PC1.15	48
Schulz, Dirk	
PB7.10	36
Scorretti, Riccardo	
PA10.2	18
PC7.11	59
PD1.11	70
PD8.14	85
Scott, Jonathan B.	
PD8.12	85
Seagar, Andrew D	
PB3.4	27
Seo, Jung Moo	
PA8.12	15
Seo, Kang	
PC5.10	54
Seo, Minkyu	
PD7.2	82
Seo, W. B.	
PA7.9	13
Sergeant, Peter	
PA3.2	5
Serres, Alexandre	
PC9.1	61
Sevegnani, Francisco Xavier	
PD8.4	84
Shanming, Wang	
PA8.2	14
Shao, K. R.	
PA9.3	16
PB1.13	25
PB5.13	32
Shao, Keran	
PB5.12	32
PB5.14	33
PC12.1	66
Shaogang, Huang	
PA8.2	14
Shen, Jianxiang	
PA1.11	2
Shen, Zhongxiang	
PB11.1	42
Sheng, Xin-Qing	
PA5.4	9
PA5.5	9
Shi, Zhanghai	
PC11.13	65
Shiiki, Kazuo	

PB12.1	44
Shimizu, Koichi	
PB12.3	44
Shimomura, Kosuke	
PA5.13	10
Shin, Dong Kyu	
PA8.7	15
Shin, P.S.	
PD7.6	82
Shinnoh, Toshifumi	
PA6.4	10
Shiqiong, Li	
PA10.1	18
PA6.15	12
Shiromizu, Tsunehiro	
PA12.3	21
Shoji, Noritaka	
PB4.1	29
Shoubao, Liu	
PA1.3	1
PA3.7	5
Shuai, Zhang	
PC3.5	50
Sibué, Jean-Romain	
PD4.6	76
Sieni, Elisabetta	
PB4.13	30
PB9.9	39
Silva, Elson José	
PB7.1	35
PC1.12	47
Silva, Élson José	
PC1.13	47
Silva, Renato Simões	
PC5.5	54
Silveira, Jony Laureano	
PD7.3	82
Silveira, Marília Amaral da	
PC1.8	47
Siqueira, Cesareo de La Rosa	
PB12.2	44
Sixdenier, Fabien	
PB11.9	43
PD1.7	70
PD1.8	70
Sixdeniers, Fabien	
PD1.11	70
Slusanschi, Emil	
PD3.6	74
Smajic, Jasmin	
PC11.21	66
Soares de Carvalho, Elissa	
PB9.8	39
PD6.10	81
Soh, Hyunjun	
PB1.12	25
Somkun, Sakda	
OC1.2	46
Son, Ju-Wan	
PC2.7	49
PD6.8	80
Song, Baik-Kee	
PC10.13	64
Song, Guiying	
PD1.9	70
Song, Hang Sang	

PC2.6	48	PB5.8	32	PA12.3	21
Song, Jeong-Tae		Susic, Marko		Tavakoli, Hanif	
PD5.3	78	PA8.6	15	PA6.13	12
Song, Ki-Dong		Suzuki, Kenji		Taylor, Bill	
PA7.9	13	PD7.1	82	PB1.7	25
PC8.8	60	Suzuki, Satoshi		Telló, Marcos	
Song, M.H.		PA6.12	11	PB11.5	43
PD7.6	82	Suzuki, Yusaku		Terauchi, Naoya	
Song, Xueguan		PB1.7	25	PA7.3	13
PC12.8	67	Sykulski, Jan K		Thomas, Pierre	
Song, Yunxing		OA1.1	1	PC3.8	51
PB4.2	29	Sykulski, Jan K.		PD8.14	85
Souflaris, Athanassios		PB8.7	37	Tiaraju dos Reis Loureiro, Luiz	
PD6.3	80	Tada, Shin		PD5.7	78
Specogna, Ruben		PA3.3	5	Ticar, Igor	
PC4.10	53	Tai, Cheng-Chi		PD6.12	81
PC4.11	53	PA2.12	4	Tiegna, Huguette	
Stegen, Sascha		Takada, Atsushi		PA2.7	4
PA4.9	7	PC1.2	46	PC7.3	58
Steiner, Gerald		PC1.3	46	Todaka, Takashi	
PB5.6	32	Takagi, Takahiro		PA6.6	11
PB5.7	32	PB4.1	29	PA8.9	15
Steinmetz, Thorsten		Takagi, Toshiyuki		PC9.6	62
PC11.21	66	PA5.12	10	PC9.7	62
Stella, Andrea		PD3.1	74	PD7.13	83
PC4.11	53	PD7.1	82	Tokumasu, Tadashi	
Stepień, Slawomir Jan		Takahashi, Kazutoshi		OD2.1	81
PA3.4	5	PB10.16	42	PA10.16	19
Stermecki, Andrej		Takahashi, Norio		PC5.9	54
PA5.15	10	PA3.1	5	Tolosa, Thiago Grandi	
PB6.3	33	PA4.12	8	PA9.11	17
PD2.14	72	PA5.13	10	Tominaga, Yusuke	
Streckert, Joachim		PA6.4	10	PB5.5	31
PD8.13	85	PB8.11	38	Tong, Chengde	
Stryczewska, Henryka D.		Takahashi, Yasuhito		PB8.8	38
PB9.1	38	OD2.1	81	PC10.12	64
PD4.4	76	PA10.16	19	Toyama, Shuhei	
Suda, Reiji		PC3.6	50	PA6.12	11
PD2.5	71	PC3.7	50	Toyoda, Akihisa	
Sugimoto, Shin-ichiro		PC5.15	55	PA12.3	21
PA1.1	1	PC5.9	54	Trevisan, Francesco	
PB7.3	35	PD7.7	82	PC4.10	53
PC5.14	55	Takamatsu, Tomoaki		PC4.11	53
Sui, Yi		PC3.6	50	Trichet, Didier	
PB8.8	38	PC3.7	50	PC2.5	48
PC10.12	64	Takase, Tsugiko		Trlep, Mladen	
Sun Ying		PD7.1	82	PA5.10	9
PD1.9	70	Takayama, Teruou		PA9.6	16
Sun, C		PA6.2	10	Trowbridge, Charles William	
PA3.17	6	Takbash, Amir Masoud		OA1.1	1
Sun, Mingui		PD5.14	79	Tsampouris, Evangelos	
PC12.9	67	Takei, Amane		PB9.4	39
PD7.12	83	PB7.3	35	Tsampouris, Evangelos M.	
Sun, Shu Hai		Takorabet, Nouredine		PD4.8	76
PB8.13	38	PA7.7	13	Tsiboukis, Theodoros	
Sun, Tao		PB9.15	40	PD4.10	77
PB10.15	42	Tamburrino, A.		PD4.9	77
PC10.13	64	PC12.5	67	Tsili, Marina	
Sun, Xikai		Tamitani, Satoshi		PD6.3	80
PA11.9	20	PA12.7	22	Tsou, Yi-Lin	
Sun, Youliang		PC5.9	54	PB8.4	37
PC3.2	50	Tanaka, Takayuki		Tsuchimoto, Masanori	
Sung, So-Young		PA3.1	5	PA1.12	2
PC10.14	64	Tang, Zuqi		Tsukamoto, Toshio	
PD6.13	81	PC3.10	51	PB12.3	44
Sung, Young Hwa		Tashiro, Korefumi		Tsuzaki, Kenta	

PA12.7	22
PC5.9	54
Tuerk, Christian	
PB3.9	28
Tung, Le Duc	
PC11.20	66
Uchimoto, Tetsuya	
PA5.12	10
PD7.1	82
Uehara, Yuji	
PB12.3	44
Ueno, Toshiyuki	
PB12.8	45
Ueyama, Kenji	
PB4.1	29
Ujigawa, Satoshi	
PA6.4	10
Ulrych, Bohus	
PC8.7	60
Valavi, Mostafa	
PB2.9	26
Valente Jr., Wilson	
PD8.9	84
Valente Junior, Wilson	
PD8.3	84
Van den Bossche, Alex	
PA3.2	5
Vanaverbeke, Siegfried	
OC1.1	46
Vansompel, Hendrik	
PA3.2	5
Vaskó, András	
PD4.15	77
Ventre, S.	
PC12.5	67
Vermiglio, Rossana	
PC4.10	53
Vianna Neto, Julio Xavier	
PB5.4	31
Vincent, Benjamin	
PA9.2	16
PD8.10	85
Vollaire, Christian	
PB11.14	44
PD8.10	85
Voyer, Damien	
PC1.11	47
PC11.11	65
Vrijssen, Nilles	
PC7.5	58
Wac-Wlodarczyk, Andrzej	
PB9.1	38
PD4.4	76
Wagner, B.	
PA9.1	16
Wakao, Shinji	
OD2.1	81
PA10.16	19
PA12.3	21
PA12.7	22
PC3.6	50
PC5.9	54
Walter P. Carpes Jr.	
PD9.10	86
Wang Bowen	
PD1.9	70

Wang X.	
PB8.11	38
Wang Youhua	
PA6.11	11
PB8.12	38
Wang, Bowen	
PA4.4	7
Wang, Daohan	
PB6.1	33
PB6.9	34
Wang, Fangqun	
PB4.15	31
Wang, Fei	
PB4.12	30
Wang, Gang	
PA7.2	12
Wang, Hongbin	
PA9.14	17
Wang, Huijun	
PB4.9	30
Wang, Jian	
PC3.1	50
Wang, Jue	
PC1.14	48
Wang, Junhua	
PC12.9	67
PD7.12	83
Wang, Li	
PA4.4	7
PD3.1	74
Wang, Minxi	
PA11.10	20
PA11.4	20
Wang, Peng	
PB3.2	27
Wang, Qian	
PA8.8	15
Wang, Quandi	
PA2.1	3
Wang, Ren H.	
PB9.10	39
Wang, Semyung	
PD6.6	80
PD9.3	86
Wang, Shao-Po	
PB8.5	37
Wang, Shuhong	
PB10.14	42
PB8.10	38
PB8.6	37
PD6.2	80
Wang, Shunchao	
PB3.8	28
Wang, Wei	
PA11.11	21
PA8.3	14
PB8.10	38
Wang, Weimin	
PA3.11	6
PA8.10	15
Wang, Xianbing	
PB4.3	29
PC5.12	55
Wang, Xiaowei	
PD3.1	74
Wang, Xiuhe	

PB6.1	33
PB6.9	34
Wang, Yan	
PB3.2	27
Wang, Yi	
PB5.14	33
PB6.13	34
PD1.5	69
Wang, Youhua	
PA4.13	8
PA4.15	8
PA4.4	7
PA4.6	7
PA6.3	10
PA9.15	17
PB4.12	30
PB4.7	30
PB5.15	33
PB9.14	40
PD1.4	69
PD3.3	74
Wang, Youlong	
PD3.13	75
Wang, Yue	
PB3.2	27
Wang, Z.	
PB2.13	27
Wang, Zheng	
PB11.3	42
Wang, Zhihua	
PA4.4	7
Watanabe, K.	
PC5.8	54
Watanabe, Kota	
OB1.1	24
PA9.4	16
PC5.11	54
PC9.5	61
Watanabe, Y.	
PB7.6	36
PC5.8	54
Watanabe, Yuta	
OB1.1	24
Water, Wayne	
PA4.11	8
Weiland, Thomas	
OC2.1	57
Weili, Yan	
PC3.5	50
Weinzierl, Djonny	
PB4.14	30
Wen, Xuhui	
PD3.13	75
While, Peter	
PA2.4	3
Wisintainer, Bruno William	
PD7.3	82
Wolter Ferreira, Daniela	
PB4.6	29
Won, Hyuk	
PB12.5	44
PB12.6	44
PC1.7	47
PC5.10	54
PC5.6	54
Won, Sung Hong	

PC6.12	57	PA6.5	11	PA2.10.....	4
Won, Sung-Hong		Xu, Guizhi		Yang, Chang Seob	
PC7.13	59	PA12.13	23	PC1.7.....	47
PD5.1	77	PA4.13	8	PC5.6.....	54
Woo, Byung-Chul		PA4.15	8	Yang, Chang-Seob	
PB4.16	31	PA9.14	17	PA7.1.....	12
PB6.2	33	PB5.15	33	Yang, Fan	
PD5.15	79	PC1.4.....	46	PA5.14.....	10
PD5.6	78	PC11.19.....	65	PB12.7.....	45
Woo, Kyungil		PC3.3.....	50	Yang, G. Y.	
PC8.13	61	PD3.3	74	PB5.13.....	32
Woo, Seok-Hyeon		Xu, Wei		Yang, Guangyuan	
PB10.7	41	PA6.7	11	PA9.3.....	16
PB10.9	41	PB10.12	42	PC12.1.....	66
Wu, Jinpeng		PB10.13	42	Yang, Guijie	
PD8.6	84	PB5.13	32	PB1.1.....	24
Wu, Qun		PC11.13.....	65	Yang, Guohui	
PA12.1	21	PD3.15	75	PB3.11.....	28
PB3.10	28	Xu, Xiaoyu		Yang, Guo-Hui	
PB3.11	28	PA10.3	18	PA12.1.....	21
PB3.2	27	Xu, Y		PB3.10.....	28
PB7.11	36	PA4.10	8	Yang, Kai	
Wu, Youxi		Xu, Yongxiang		PB2.4.....	26
PB5.15	33	PC8.14.....	61	Yang, Ming-Lin	
Wu, Yuming		PC8.15.....	61	PA5.4.....	9
PB3.2	27	Xu, Zheng		PA5.5.....	9
Wu, Zhongze		PA5.14	10	Yang, Qinghua	
PB2.5	26	PB12.7	45	PA12.14.....	23
Wurtz, Frederic		Xueying, Zhang		Yang, Qingxin	
PB9.8	39	PC3.5.....	50	PA4.13.....	8
PD6.10.....	81	Yajima, Atsushi		PB4.12.....	30
Xavier, Cesar Candido		PA12.3	21	PB4.7.....	30
PC7.15	59	Yamada, Shinichiro		PC11.19.....	65
Xia, Dong		PA3.3	5	PC12.10.....	67
PA4.1	7	Yamada, Sotoshi		PC8.3.....	59
Xia, Zhanjun		PB12.8	45	PD1.4.....	69
PC9.3	61	Yamada, Takashi		PD1.5.....	69
Xiang, Hongjun		PB1.7	25	Yang, SeungHo	
PA5.1	8	Yamaguchi, Katsuhiko		PA5.9.....	9
PA7.5	13	PD7.1	82	Yang, Shengnan	
Xiangheng, Wang		Yamaguchi, Tadashi		PC12.10.....	67
PA8.2	14	PA1.14	2	Yang, Shiyou	
Xiao, Dongping		PA6.12	11	OD1.1.....	69
PA2.9	4	PA6.8	11	PB1.2.....	24
Xiao, Yuming		Yamashita, Hideo		PB1.3.....	24
PD1.2	69	PA1.17	3	PB1.6.....	25
Xiaofang, Liu		PC1.5.....	46	Yang, Wenrong	
PB9.10	39	Yamazaki, Katsumi		PB4.12.....	30
Xie, Dexin		PA2.2	3	PB4.7.....	30
PA7.2	12	PA3.3	5	PC11.19.....	65
PD4.12	77	Yan, Haiyuan		PD3.3.....	74
Xie, Qingming		PC10.12.....	64	Yang, Xiaoguang	
PC8.1	59	Yan, Rongge		PA4.6.....	7
Xie, Shejuan		PC12.10.....	67	PA6.3.....	10
PA10.5	18	Yan, Weili		PA9.15.....	17
PA5.12	10	PA4.15	8	PB9.14.....	40
PD3.1	74	PA4.4	7	Yang, Xuewen	
Xin, Ying		PA6.11	11	PA12.13.....	23
PC4.9	53	PA9.14	17	PA4.15.....	8
Xing, Jin		PB8.12	38	Ye, Yunyue	
PA12.8	22	PC3.3.....	50	PA3.15.....	6
Xing, Jingwei		Yan, Xiuke		Yin, Han	
PA7.8	13	PA7.2	12	PA10.11.....	19
Xiong, Nan		Yan, Zhuo		PA5.7.....	9
PC9.11	62	PD6.7	80	PC9.13.....	62
Xiong, Zubiao		Yanase, Kazuya		Yin, Ning	

PA12.13	23	PD8.10	85	Zhang, Pengyu	
PC1.4	46	Zeng, Rong		PA12.2	21
Yin, Xiaoming		PA10.11	19	Zhang, Qiuhui	
PC12.13	68	PA5.7	9	PD6.2	80
Yin, Zhijun		PC4.12	53	Zhang, Shaoqing	
PA7.8	13	PC4.13	53	PB7.11	36
Ying, Guoqing		PC9.13	62	Zhang, Shuai	
PB8.10	38	PD8.6	84	PA9.14	17
Ying, Luo		Zeng, Xuan		PC3.3	50
PB9.10	39	PD2.3	71	Zhang, Siyao	
Yingli, Luo		Zeze, Shingo		PA8.3	14
PD1.3	69	PA6.6	11	Zhang, Tong	
Yioultsis, Traianos		Zezhong, Wang		PB3.11	28
PB7.5	35	PA10.1	18	Zhang, Weidong	
Yonghong, Xia		PA6.15	12	PB11.10	43
PA8.2	14	Zgainski, François-Xavier		PB11.11	43
Yonnet, Jean-Paul		PD7.10	83	PB11.12	43
PD2.13	72	Zhang Chuang		Zhang, Wenling	
Yoo, Jeonghoon		PC11.19	65	PB4.12	30
PB1.11	25	PD1.9	70	Zhang, Xiaojie	
PB1.12	25	Zhang Shuai		PC11.19	65
Yoon, H.S.		PA12.13	23	Zhang, Xiu	
PD7.6	82	PC1.4	46	PA12.6	22
Yoshida, Kazuetsu		Zhang, Bo		PC3.13	51
PB12.3	44	PA10.11	19	Zhang, Xiumin	
Yoshimoto, Takamichi		PA5.7	9	PC12.12	68
PB4.1	29	PB3.8	28	Zhang, Yanli	
Yoshimura, Shinobu		PB6.5	33	PA7.2	12
PB7.3	35	PC4.12	53	PD4.12	77
PB7.9	36	PC4.13	53	Zhang, Yong	
PC5.14	55	PC9.13	62	PB3.10	28
You, Dae-Joon		PD8.6	84	Zhang, Yongchang	
PC10.3	63	Zhang, Chao		PA6.7	11
PC10.4	63	PD6.7	80	Zhang, Yujiao	
PC10.5	63	Zhang, Chengfen		PC4.2	52
PC6.11	56	PB5.1	31	PC4.5	52
PC6.13	57	Zhang, Chuang		Zhang, Zhanlong	
You, Shan-Jen		PA4.13	8	PA2.9	4
PB8.5	37	PC8.3	59	Zhao, Anping	
You, Yong min		Zhang, Dianhai		PA4.2	7
PB2.15	27	PC10.9	64	Zhao, Bo	
Yu, Gwang-Jun		Zhang, Gan		PA8.11	15
PA12.15	23	PA11.2	19	PA8.13	15
Yu, Haitao		PA11.8	20	PB1.1	24
PB4.4	29	Zhang, Huaiqing		Zhao, Changwei	
PB6.8	34	PA2.1	3	PC1.10	47
PC6.4	56	Zhang, J.		PC1.9	47
Yu, Minghu		PB8.11	38	Zhao, Dongdong	
PA3.15	6	Zhang, Jian		PA11.1	19
Yu, Shaofeng		PB6.4	33	Zhao, Huapeng	
PD8.6	84	PD3.13	75	PB11.1	42
Yuan, Haiwen		Zhang, Jianzhong		Zhao, Huifang	
PA12.14	23	PA11.10	20	PD3.3	74
Yuan, Jiansheng		PA11.4	20	Zhao, Jing	
PA5.1	8	Zhang, Jing		PB8.8	38
PA7.5	13	PA10.5	18	PC6.4	56
Yun, Kyyoul		Zhang, Jun		Zhao, Lei	
PD4.2	76	PB10.14	42	PB5.15	33
Yun, Seung ho		Zhang, Kuang		Zhao, Mei	
PC5.10	54	PA12.1	21	PA8.8	15
Zaidi, Houda		PB3.10	28	Zhao, Pinzhi	
PC9.8	62	Zhang, Lei		PB1.1	24
Zaim, Mohammed El Hadi		PA2.3	3	Zhao, Wenxiang	
PC2.5	48	PD3.13	75	PA11.12	21
Zangui, Sanâa		Zhang, Na		PB4.15	31
PB11.14	44	PA4.4	7	PB5.9	32

PB9.2	39	PA10.8	18	PD1.5.....	69
Zhao, Xiaojun		PA10.9	18	PD2.1.....	71
PA6.10	11	Zhou, Yi		PD3.10.....	75
Zhao, Xuming		PD8.13	85	PD7.12.....	83
PA2.3	3	Zhou, Zhongyu		Zhu, Jian-Guo	
Zhao, Y		PB4.2	29	PA12.11.....	22
PA3.16	6	Zhu, Boyan		Zhu, Jian-Guo	
Zhao, Yanpu		PD8.5	84	PB10.12.....	42
PA1.13	2	Zhu, Boyuan		Zhu, Jian-Guo	
PA12.6	22	PB11.7	43	PB10.13.....	42
PC2.1	48	Zhu, Hengliang		Zhu, Jian-Guo	
PC3.13	51	PD2.3	71	PC4.9.....	53
Zhao, Yanzhen		Zhu, Jian Guo		Zhu, Jian-Guo	
PB5.1	31	PB10.14	42	PD3.15.....	75
Zhao, Zhigang		PB8.6	37	Zhu, Mingcheng	
PA6.11	11	PD6.2	80	PB11.7.....	43
PB8.12	38	Zhu, Jianguo		Zhu, Xiaoyong	
Zhen, Yongzan		OB2.2	35	PB6.5.....	33
PA10.10	18	PA1.15	3	Zhu, Yu-Wu	
PA10.8	18	PA11.15	21	PA11.13.....	21
PA10.9	18	PA11.5	20	PB2.7.....	26
Zheng, Lu-Hai		PA11.6	20	Zhu, Z.Q.	
PB10.12	42	PA11.7	20	PA2.3.....	3
PB10.13	42	PA3.10	6	Zhu, Zhanxin	
PD3.15	75	PA4.14	8	PA7.2.....	12
Zheng, Ping		PA5.2	8	Zhu, Zhenhai	
PB8.8	38	PA5.3	9	PA2.9.....	4
PC10.12	64	PA5.8	9	Zhuang, Chijie	
Zheng, Yuesheng		PA6.14	12	PC4.12.....	53
PC4.13	53	PA6.7	11	Zilberti, Luca	
Zhou, Gan		PA8.14	16	PC4.4.....	52
PB6.12	34	PA9.3	16	Zolla, Frederic	
Zhou, Ping		PB1.13	25	PB7.14.....	36
PA1.2	1	PB2.13	27	Zou, Jibin	
PA3.5	5	PB5.12	32	PA8.11.....	15
PD1.2	69	PB5.13	32	PA8.13.....	15
Zhou, Shigui		PB5.14	33	PA8.8.....	15
PB4.4	29	PB6.13	34	PC8.14.....	61
PB6.8	34	PB8.1	37	PC8.15.....	61
Zhou, X		PC12.1.....	66	Zucca, Mauro	
PA3.17	6	PC2.1.....	48	OB2.1	35
Zhou, Xiangxian		PC6.6.....	56	Zwysen, Jeroen	
PA10.10	18	PD1.4	69	PD2.11.....	72

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

REALIZE YOUR PRODUCT **PROMISE**TM



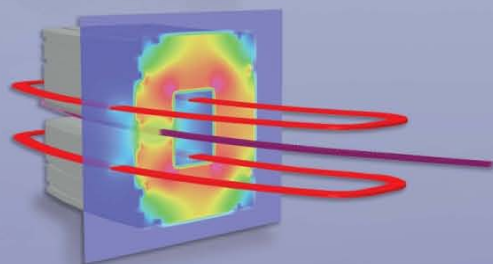
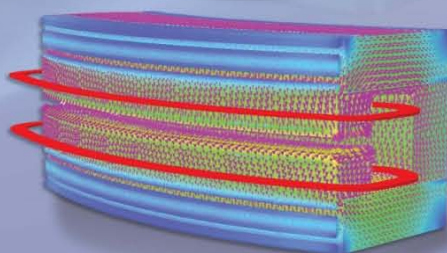
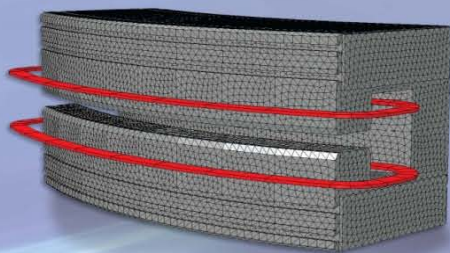
Simulation Driven Product DevelopmentTM

From signal integrity to electromagnetic compliance to mechanical reliability, the world's most innovative companies rely on ANSYS to solve their toughest engineering problems. Join them and learn how the ANSYS electronics simulation portfolio can help you reduce your product development cycle, expand your design horizons and realize your product promise.

www.ansys.com/electronics

ANSYS[®]

Electromagnetics • Structural • Fluid Dynamics • Multiphysics



Opera – Accelerator Magnet & Cavity Design

Cobham Technical Services
Vector Fields Software

The most important thing we build is trust

COBHAM



Electromagnetic design software

- Dipole, quadrupole and higher order magnets in DC operation
- Transient behaviour of kicker, corrector, injection and extraction magnets
- Wigglers and undulators
- Superconducting, resistive and permanent magnet systems
- RF Tools for accelerator cavities

Fast and accurate calculation of:

- Field harmonic analysis
- Forces on coils and ferromagnetic components
- Losses due to eddy currents and hysteresis
- Trajectories of charged particle beams
- Quench in superconducting coils
- Resonant frequency, Q-factor and shunt impedance

Australia and New Zealand distributors

HTS-110 Limited
69 Gracefield Road
PO Box 31-310, Lower Hutt 5040
New Zealand

T +64 (0) 4 931 3000

F +64 (0) 4 931 3344

E info@hts-110.com

www.hts-110.com

