

## SUNDAY, SEPTEMBER 6

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**16:00 - 19:00** REGISTRATION AND WELCOME RECEPTION

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## MONDAY, SEPTEMBER 7

**8:30 - 17:30** RECEPTION AND REGISTRATION

**9:00 - 9:30** OPENING SESSION  
Session chair: *Fausto Fiorillo*  
  
Welcome and opening address

**9:30 - 10:30** MORNING ORAL SESSION Part I  
Session chair: *David Jiles*

**A1-01 (invited)** Development and applications of magnetic Fe-based bulk glassy alloys  
*Akihisa Inoue*

**A1-02 (invited)** Element-selective pump-probe studies of fast magnetization dynamics using soft x-rays  
*Claus M. Schneider, A. Kaiser, C. Wiemann, P. Grychtol, R. Adam, C. Tieg, S. Cramm*

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**10:30 - 11:00** COFFEE BREAK

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**11:00 - 12:00** MORNING ORAL SESSION Part II  
Session chair: *Roland Groessinger*

**A1-03** Magnetization processes controlled by different arrangements of notches in permalloy rings  
*Ying-Jiun Chen, Chia-Jung Hsu, Chun-Neng Liao, Chiun-Peng Lee, Mei-Feng Lai*

**A1-04** Theoretical comparison of magnetization switching characteristics for spin-polarized current assisted recording, precessional switching and toggle switching of magnetization in soft magnetic materials  
*Mihai Dimian, Anca Gîndulescu, Petru Andrei*

- A1-05** Structure and magnetic properties of thin permalloy films near the “transcritical” state  
*A.V. Svalov, I.R. Aseguinolaza, A. Garcia-Arribas, I. Orue, J.M. Barandiaran, J. Alonso, M.L. Fdez-Gubieda, G.V. Kurlyandskaya*
- A1-06** Magnetic measurements of Fe-Ni-Nb-B and Fe-Co-Mo-Cu-B in the vicinity of the Curie temperature  
*Gabriel Vlasák, Peter Švec, Anna Slawska-Waniewska, Marek Kuzminski, Beata Butvinová, Pavol Butvin*

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**12:00 - 14:00** LUNCH

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**14:00 - 16:00** AFTERNOON ORAL SESSION  
Session chair: *Manuel Barandiaran*

**A1-07 (invited)** Determination of the magnetization distribution in soft magnetic films using microwave permeability measurements  
*Marc Ledieu, Vincent Dubuget, Sébastien Dubourg, Olivier Acher*

**A1-08 (invited)** Electromagnetic modeling of Ethernet transformers  
*David Bowen, Isaak Mayergoyz, Charles Krafft*

**A1-09** Applications of soft magnetic properties of hexagonal ferrites in high frequency device design  
*Anton L. Geiler, Jianwei Wang, Peng He, Soack Dae Yoon, Yajie Chen, Vincent G. Harris, Carmine Vittoria*

**A1-10** Comparison of axial flux synchronous pm machines with iron and soft magnetic composite rotors  
*Fabrizio Marignetti, Vincenzo Delli Colli, Silvio Carbone*

**A1-11** Magnetic shielding performance of thin metal sheets near power cables  
*Sang-Beom Kim, Joon-Young Soh, Yun-Seog Lim, Sung-Ho Myung*

**A1-12** Analysis of losses in a magnetostrictive device under dynamic supply conditions  
*M. Zucca, P.E. Roccatto, O. Bottauscio, C. Beatrice*

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**16:00 - 16:30** COFFEE BREAK

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**16:30 - 18:30** POSTER SESSIONS

B1 - Basic problems, magn. processes, domain studies, micromagnetics I  
Session chairs: *Raul Valenzuela, Massimiliano d'Aquino*

C1 - Grain-oriented and non oriented electrical steels I  
Session chairs: *Jeremy Hall, Pavel Ripka*

D1 - Fe-Ni, Fe-Co, amorphous and nanocrystalline alloys I  
Session chairs: *Manuel Vazquez, Marcello Baricco*

E1 - Soft ferrites, powder cores and composite materials I  
Session chairs: *Olivier Geoffroy, Ermanno Cardelli*

F1 - Thin films, metamaterials, novel and special materials I  
Session chairs: *Anna Slawska-Waniewska, Luciano Lanotte*

H1 - Transformers, motors, actuators and other power applications I  
Session chairs: *Aly Ferreira Flores Filho, Alessandra Manzin*

**16:30** EXHIBITORS' PRESENTATIONS (in lecture hall, details given during the conference)

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**20:00** CONFERENCE DINNER

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## TUESDAY, SEPTEMBER 8

**8:30 - 17:30** RECEPTION AND REGISTRATION

**8:30 - 10:00** MORNING ORAL SESSION Part I  
Session chair: *Afef Kedous-Lebouc*

**A2-01 (invited)** Rotational magnetization in transformer cores – a review  
*Helmut Pfützner, Edin Mulasalihovic, H.Yamaguchi, Damir Sabic, Georgi Shilyashki*

**A2-02 (invited)** Low Ni content fcc alloys: recent evolution and applications  
*Thierry Waeckerlé*

**A2-03 (invited)** International standards applied to magnetic alloys and steels  
*Hugh Stanbury*

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**10:00 - 10:30** COFFEE BREAK

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**10:30 - 12:00** MORNING ORAL SESSION Part II  
Session chair: *Fernando Landgraf*

**A2-04 (invited)** Comparison of non-oriented material and grain oriented material for an axial flux permanent-magnet machine  
*Damian Kowal, Peter Sergeant, Luc Dupré, Alex Van den Bossche*

**A2-05** Texture sharpness of Fe-3%Si grain-oriented electrical steels with different magnetic properties  
*Matthias Frommert, Stefan Zaefferer, Ludger Lahn, Andreas Böttcher, Dierk Raabe*

**A2-06** Loss separation in NO electrical steels  
*Sergey E. Zirka, Yuriy I. Moroz, Philip Marketos, Anthony J. Moses*

**A2-07** Comparison of magnetic field analysis models considering magnetic anisotropic properties  
*Teruyuki Tamaki, Keisuke Fujisaki, Ryu Hirayama, Koji Fujiwara*

**A2-08** New permanent magnet synchronous motors with amorphous rolled cores  
*Zhuonan Wang, Yuji Enomoto, Motoya Ito, Ryoso Masaki, Shigeki Morinaga, Hiromitsu Itabashi, Sigeho Tanigawa*

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**12:00 - 14:00** LUNCH

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**14:00 - 16:00** POSTER SESSIONS

B2 - Basic problems, magn. processes, domain studies, micromagnetics II  
Session chairs: *Martin Sablik, Gianfranco Durin*

C2 - Grain-oriented and non oriented electrical steels II  
Session chairs: *Naim Derebasi, Yasuo Okazaki*

D2 - Fe-Ni, Fe-Co, amorphous and nanocrystalline alloys II  
Session chairs: *Nicoleta Lupu, Peter Svec*

G2 - Magnetic measurements and instrumentations I  
Session chairs: *Michael Hall, Norio Takahashi*

H2 - Transformers, motors, actuators and other power applications II  
Session chairs: *Anthony Moses, Mario Chiampi*

**14:00** EXHIBITORS' PRESENTATIONS (in lecture hall, details given during the conference)

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**16:00 - 16:30** COFFEE BREAK

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**16:30 - 18:30** SPECIAL ORAL SESSION

Session chair: *Paolo Allia*

Spintronics: nanoscience and nanoelectronics  
(IEEE Magnetics Society Distinguished Lecture)  
*Hideo Ohno*

De Magnete: some philosophical considerations around magnetism  
*Vittorio Marchis*

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**21:00** CONCERT

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## WEDNESDAY, SEPTEMBER 9

**8:30 - 17:30** RECEPTION AND REGISTRATION

**8:30 - 10:00** MORNING ORAL SESSION Part I  
Session chair: *Masahiro Yamaguchi*

**A3-01 (invited)** Magnetic normal modes in squared antidot array with circular holes: a combined Brillouin light scattering and broadband ferromagnetic resonance study  
*S. Tacchi, M. Madami, G. Gubbiotti, G. Carlotti, A.O. Adeyeye, S. Neusser, B. Botters, D. Grundler*

**A3-02 (invited)** Advances on soft magnetic ferrites  
*V. Zaspalis, V. Tsakaloudi, G. Kogias, P. van der Valk*

**A3-03 (invited)** Application oriented issues of amorphous and nanocrystalline alloys  
*Giselher Herzer, Sybille Flohrer*

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**10:00 - 10:30** COFFEE BREAK

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**10:30 - 12:00** MORNING ORAL SESSION Part II  
Session chair: *Carmine Vittoria*

**A3-04 (invited)** Sensors and actuators based on magnetic wires and nanowires  
*Horia Chiriac, Mihai Tibu, Nicoleta Lupu*

**A3-05** Pressure dependence of magnetic properties in Fe-Mn-B amorphous alloys  
*László F. Kiss, Tamás Kemény, Jiri Kamarád, Zdenek Arnold*

**A3-06** A magnetoelastic spin valve  
*Erhard Kisker*

**A3-07** Anisotropic magnetoresistance in ordered nanowire arrays  
*M. Vázquez, G. Badini-Confalonieri, P. Cojocar, F. Muscolino, L. Magagnin*

**A3-08** The influence of soft magnetic layer thickness on the inductance and resistance of NiFe/Cu composite wires  
*Ning Ning, Xiaoping Li*

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**12:00 - 14:00** LUNCH

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**14:00 - 15:00** AFTERNOON ORAL SESSION

Session chair: *Marco Coïsson*

- A3-09** Electrodeposition of Co-Ni and Co-Ni-P films with modulated magnetic behavior  
*Paula Cojocaru, Luca Magagnin, Elvira Gomez, Elisa Valles*
- A3-10** A low-field scaling rule of minor hysteresis loops in plastically deformed steels  
*Satoru Kobayashi, Seiki Takahashi, Yasuhiro Kamada, Hiroaki Kikuchi*
- A3-11** Side channel attack to magnetic near field of cryptographic LSI and its countermeasure by means of magnetic thin film  
*Masahiro Yamaguchi, Hideki Toriduka, Shoichi Kobayashi, Takeshi Sugawara, Naofumi Homma, Akashi Satoh, Takafumi Aoki*
- A3-12** Enhancement and correlation of MFM images: effect of the tip on the magnetic configuration of patterned Co thin films  
*Alessandro Chiolerio, Paola Martino, Federica Celegato, Salvatore Giurdanella, Paolo Allia*

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**15:00 - 15:30** COFFEE BREAK

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**15:30 - 17:30** POSTER SESSIONS

D3 - Fe-Ni, Fe-Co, amorphous and nanocrystalline alloys III

Session chairs: *Ludek Kraus, Elemir Usak*

E3 - Soft ferrites, powder cores and composite materials II

Session chairs: *Ivan Skorvanek, Lajos Varga*

F3 - Thin films, metamaterials, novel and special materials II

Session chairs: *Frédéric Mazaleyrat, Franco Vinai*

G3 - Magnetic measurements and instrumentations II

Session chairs: *Gabor Vertesy, Ciro Visone*

M3 - Sensors, high-frequency and electronic applications

Session chairs: *Evangelos Hristoforou, Rubem Sommer*

N3 - Shielding, environment and energy saving applications

Session chairs: *Alessandro Magni*

**17:30 - 18:00** CLOSING SESSION  
Session chair: *Giorgio Bertotti*

Critical review of SMM 19 technical program  
*Ryusuke Hasegawa*

Best student presentation award

Closing address

## **THURSDAY, SEPTEMBER 10**

**9:15 - 12:00** VISIT TO INRIM MAGNETICS LABORATORIES

A visit to INRIM magnetism laboratories will be organized for interested colleagues who will have the possibility of spending the day of Thursday in Torino. Those who are interested in the visit should leave their name at the SMM 19 reception desk by Wednesday, September 9, at noon.

A bus will leave from "Torino Incontra" Conference Center to INRIM laboratories on Thursday, September 10, at **9:15**.

Session B1 - Basic problems, magn. proc., domain studies, micromagnetics I  
Monday, September 7

- B1-01** Computer simulation of pinning effects in multicomponent systems  
*Carlos Moron, Puerto Ramirez, Fernando J. Maganto, Enrique Tremps, Alfonso Garcia*
- B1-02** Constricted hysteresis loops in Fe single crystal  
*Seiki Takahashi, Satoru Kobayashi*
- B1-03** Two-dimensional mapping of spin modes in elliptical nanorings by micro-focused Brillouin light scattering  
*M. Madami, S. Tacchi, G. Gubbiotti, G. Carlotti, F. Montoncello, G. Capuzzo, L. Giovannini, F. Nizzoli, H. Tanigawa, T. Ono*
- B1-04** New mathematical approach using fractional derivatives to take into account excess losses in magnetic materials  
*Marie-Ange Raulet, Benjamin Ducharne, Daniel Guyomar*
- B1-05** Effect of heating rate of annealing on magnetic properties and magnetization process in  $\text{Fe}_{80.5}\text{Cu}_{1.5}\text{Si}_4\text{B}_{14}$  nanocrystalline alloy  
*Motoki Ohta, Yoshihito Yoshizawa, Masaaki Takezawa, Jiro Yamasaki*
- B1-06** Stabilization of the Barkhausen noise parameters  
*Jozef Pal'a, Jan Bydžovský, Volodymyr Stoyka, František Kováč*
- B1-07** A micromagnetic simulation assuming periodic domain structure  
*Tetsuji Matsuo, Yuya Yamazaki*
- B1-08** Domain wall dynamics in thin magnetic wires under the influence of perpendicular magnetic field  
*K. Richter, R. Varga, G. Infante, G. Badini, M. Vazquez*
- B1-09** Irreversible resistivity response of half-metallic ferromagnets  
*Y. Melikhov, V. N. Krivoruchko, M. A. Marchenko, D. C. Jiles*
- B1-10** Generalized form of anhysteretic magnetization function for Jiles-Atherton theory of hysteresis  
*A. Raghunathan, Y. Melikhov, J. E. Snyder, D. C. Jiles*
- B1-11** Application of the boundary series method with edge function to magnetic structures of infinite permeability  
*Ernst Huijjer*
- B1-12** Two ways of analytical modelling hysteresis  
*Zdzisław Włodarski, Jadwiga Włodarska, Andrzej Brykalski*

- B1-13** Size effects at laser cutting and mechanical cutting on the magnetic properties of FeSi steels  
*E. Gomes, J. Schneider, S. Vervynckt, K. Verbeken, Y. Houbaert*
- B1-14** Dynamic neural network model of magnetic hysteresis  
*Marinel Temneanu, Codrin Donciu*
- B1-15** Spontaneous domain wall motion at zero external magnetic field in ferromagnetic nanowire  
*Dede Djuhana, Hong-Guang Piao, Je-Ho Shim, Sang-Hyuk Lee, Su-Hyeong Jun, Suhk-Kun Oh, Seong-Cho Yu, Dong-Hyun Kim*
- B1-16** Magnetic characterisation of industrial high strength steels  
*P. Fulmek, N. Mehboob, P. Haumer, M. Kriegisch, R. Grössinger*
- B1-17** A mesoscopic hysteresis model based on the unconstrained minimization of the Gibbs free energy  
*Adinda van den Berg, Luc Dupré, Ben Van de Wiele, Guillaume Crevecoeur*
- B1-18** Damped oscillatory behaviour of domain wall propagation in sinusoidal ferromagnetic nanowire  
*H.-G. Piao, J.-H. Shim, D. Djuhana, S.-H. Lee, S.-H. Jun, C.-M. Hur, S.-C. Yu, S.-K. Oh, D.-H. Kim*
- B1-19** Preparation and magneto-mechanical behavior of textured polycrystals of NiMnGa  
*Stefan Roth, Uwe Gaitzsch, Martin Pötschke, Claudia Hürrich, Andrea Böhm, Bernd Rellinghaus, Ludwig Schultz*
- B1-20** Windowing effects in magneto-optical measurements of domain wall dynamics  
*Yanjiun Chen, Stefanos Papanikolaou, James P. Sethna, Stefano Zapperi, Alessandro Magni, Gianfranco Durin*
- B1-21** Hysteresis modeling of nanoscale exchange-biased spin valves  
*Antonio Faba, Giovanni Finocchio, Bruno Azzerboni, Ermanno Cardelli*
- B1-22** Short-range order in soft-magnetic iron-silicon alloy. Ab initio calculations  
*A.R. Kuznetsov, O.I. Gorbatov, Yu.N. Gornostyrev, N.V. Ershov*
- B1-23** Frequency dependent magnetic properties of industrial high strength steels  
*P. Fulmek, P. Haumer, M. Kriegisch, R. Grössinger*
- B1-24** Ab initio calculation of electronic structure and NMR in lithium ferrite  
*Vojtěch Chlan, Pavel Novák, Helena Štěpánková, Karel Kouřil, Richard Řezníček*

- B1-25** Magnetic and NMR study of  $\text{LaMn}_{1-x}\text{Co}_x\text{O}_3$  perovskites  
*Vit Procházka, Helena Štěpánková, Bedřich Sedlák, Czesław Kapusta, Richard Řezníček, Vojtěch Chlan, Karel Knížek, Zdeněk Jirák, Miroslav Maryško*
- B1-26** Effect of dipolar interactions for domain wall dynamics in magnetic thin films  
*Adil Mughal, Lasse Laurson, Stefano Zapperi, Gianfranco Durin*
- B1-27** The influence of grain size on hysteresis loss subdivision components  
*F. J. G. Landgraf, J. R. F. Silveira, D. Rodrigues-Jr, M.F. de Campos*
- B1-28** Hysteresis study on soft magnetic nanocrystalline and amorphous materials  
*M. Fuger, D. Neudecker, R. Grössinger*

Session B2 - Basic problems, magn. proc., domain studies, micromagnetics II  
Tuesday, September 8

- B2-01** Domain structure in (NiFe / Au / Co / Au) 10 multilayers with perpendicular anisotropy of Co layers  
*B. Szymański, M. Urbaniak, P. Mazalski, F. Stobiecki, A. Maziewski, S. Pizzini, F. Maccherozzi*
- B2-02** Current-induced domain wall motion in a soft-magnetic trilayer structure  
*Erhard Kisker, Christian Schieffer*
- B2-03** Theoretical model of the plastic deformation in amorphous ribbons locally current annealed  
*Carlos Moron, Puerto Ramirez, Fernando J. Maganto, Enrique Tremps, Alfonso Garcia*
- B2-04** Observation of a transition from inverse-spin-switch to spin-switch behaviour in domain state of a Py/Nb/Py trilayer  
*Tae-Jong Hwang, Dong-Ho Kim, Sangjun Oh*
- B2-05** Magnetic and magnetotransport properties depending on the structure for the Nd-Ba-ordered manganites  
*S.V. Trukhanov, A.V. Trukhanov, L.S. Lobanovski, H. Szymczak*
- B2-06** Evaluation of Barkhausen noise and magnetoacoustic emission signals properties for plastically deformed Armco iron  
*L. Piotrowski, B. Augustyniak, M. Chmielewski, K. Kosmas, E. Hristoforou*
- B2-07** Analysis of field-induced asymmetric switching in nanopillar devices  
*Paolo Bortolotti, Michaela Kuepferling, Massimo Pasquale*
- B2-08** Numerical analysis of the influence of geometry and temperature on switching processes in magnetic nanostrips  
*A. Manzin, B. Van de Wiele, O. Bottauscio, L. Dupré, F. Olyslager*
- B2-09** A study of scaling relations in frequency-dependent minor hysteresis loops  
*Satoru Kobayashi, Hiroyuki Okazaki, Seiki Takahashi, Hiroaki Kikuchi, Yasuhiro Kamada*
- B2-10** Inner-core magnetization in glass-coated Co-rich Fe-Co amorphous microwires investigated by ferromagnetic resonance  
*R. Valenzuela, G. Alvarez, H. Montiel, M.P. Gutierrez, R. Zamorano*
- B2-11** New approach in modelling magnetic microstructure and magnetization reversal  
*Andrey Izotov, Boris Belyaev, Andrey Leksikov*

- B2-12** Estimation of the effects of microscopic misalignments on the magnetization process in thin films by energetic modeling  
*Peter Haumer, Paul L. Fulmek*
- B2-13** Application of Takacs model to dynamic hysteresis loops of amorphous and classic magnetic materials  
*Ivana Nová, Ivan Zemánek*
- B2-14** Spin-wave normal mode activation in magnetic nano-pillars with elliptical cross section  
*Federico Montoncello, Loris Giovannini, Fabrizio Nizzoli, Giancarlo Consolo, Gianluca Gubbiotti*
- B2-15** A study on the magnetic properties of Al-doped sulphur spinel  
*Chin Mo Kim, Sam Jin Kim, Chul Sung Kim*
- B2-16** Magnetisation rate dependence of the Barkhausen noise in JRQ steels  
*András Bükki-Deme, István A. Szabó*
- B2-17** Dependence of magnetization dynamics on anisotropy in thin films driven by spin-polarized currents  
*Roberto Bonin*
- B2-18** About correlation between MAE field dependence and permeability and magnetostriction  
*Boleslaw Augustyniak, Leszek Piotrowski, Marek Chmielewski, Martin J. Sablik, V. V. Volkov*
- B2-19** Spectral micromagnetic approach in the analysis of magnetization reversal processes  
*M. d'Aquino, C. Serpico*
- B2-20** FMR study of the magnetic anisotropy in Fe<sub>50</sub>Rh<sub>50</sub> core/shell nanoparticles  
*Anna Semisalova, Nikolai Perov, Diana Ciuculescu, Catherine Amiens, Bruno Chaudret, Ralf Meckenstock, Jürgen Lindner, Michael Farle*
- B2-21** Domain wall dynamics in thin magnetic strips with disorder  
*Lasse Laurson, Adil M. Mughal, Gianfranco Durin, Claudio Serpico, Stefano Zapperi*
- B2-22** Magnetic nanodots: hysteresis loops and vortex core calculations  
*J. Mejía-López, D. Atbir, J. Escrig, P. Landeros, A. H. Romero*
- B2-23** Statistical properties of Barkhausen noise in FeSiB films  
*Felipe Bohn, Marcio A. Corrêa, Alexandre D. C. Viegas, Luiz F. Schelp, Gianfranco Durin, Rubem L. Sommer*
- B2-24** The methodology of magnetic materials classification  
*A. Wac-Wlodarczyk, R. Goleman, T. Gizewski*

- B2-25** Influence of noise temporal correlation on magnetization spectra and thermal relaxations in soft magnetic materials  
*P. Andrei, M. Dimian, A. Adedoyin, A. Gîndulescu*
- B2-26** Limiting conditions on the influence of grain size on coercive field of soft magnetic materials  
*F. J. G. Landgraf, J. R. F. Silveira, D. Rodrigues-Jr.*
- B2-27** Influence of uniaxial stress on the magnetic and magnetostrictive behavior of iron-silicon single crystals  
*Karl-Joseph Rizzo, Olivier Hubert, Laurent Daniel*
- B2-28** Electronic structure and temperature dependence of a linear size of the homogeneous magnetic short-range-ordered regions in disordered B.C.C. -  $\text{Fe}_{0.5}\text{Co}_{0.5}$  alloy  
*Iryna M. Melnyk, Valentyn A. Tatarenko, Stanislav P. Repetsky, Evgen G. Len'*
- B2-29** Temperature dependent measurements of hysteresis properties on soft magnetic materials  
*N. Mehboob, R. Grössinger, P. Oser, P. Fulmek, M. Kriegisch, I. Tomas*

## Session C1 - Grain-oriented and non oriented electrical steels I

*Monday, September 7*

- C1-01** Effect of grain size distribution on coercive field of non-oriented electrical steel sheet  
*Nicolau A. Castro, Emerson G. Melo, Fernando J. G. Landgraf, Fernando S. Costa, Marcos Fukuhara, Taeko Yonamine*
- C1-02** Magnetic and mechanical properties of newly developed high-strength non-oriented electrical steel  
*Ichiro Tanaka, Hiroyoshi Yashiki*
- C1-03** Barkhausen noise and magnetic properties of plastically deformed silicon steels  
*R. Baiotto, G. Gerhard, M. Fukuhara, T. Yonamine, F. P. Missell*
- C1-04** Misorientation of grain oriented electrical steel sheets and their magnetic properties in lamination  
*Satoshi Arai, Masato Mizokami, Eiichi Namba, Masahiro Fujikura*
- C1-05** Barkhausen noise study of grain size in non-oriented FeSi steel  
*Jozef Pal'a, Jan Bydžovský, Ivan Petryshynets, František Kováč, Volodymyr Stoyka*
- C1-06** Which kind of correlations do exist between “magnetostriction of GO electrical steel” & “transformer noise”?  
*Ludger Lahn, Chaoyong Wang, Régis Lemaître*
- C1-07** Measurement of electrical steels with direct field determination  
*Oleksandr Stupakov, Richard Wood, Yevgen Melikhov, David Jiles*
- C1-08** Complex permeability of grain-oriented electrical steel over an induction range of 100  $\mu$ Tesla to 1.6 Tesla  
*George A. Cavigelli*
- C1-09** Investigation of abnormal grain growth development in conventional cold rolled Fe-3%Si steel  
*Volodymyr Stoyka, Frantisek Kovac, Oleksandr Stupakov, Ivan Petryshynets*
- C1-10** Magnetostriction anisotropy and rotational magnetostriction of a non-oriented electrical steel  
*Sakda Somkun, Anthony Moses, Philip Anderson, Piotr Klimczyk*
- C1-11** Interdependence of hysteresis and eddy-current losses in laminated magnetic cores of electrical machines  
*Emad Dlala, Anouar Belahcen, Jenni Pippuri, Antero Arkkio*

- C1-12** Effects of compressive stress perpendicular to the surface of non-oriented electric steels on their magnetic properties  
*Ken-ichi Yamamoto, Shunji Yanase*
- C1-13** Effect of Si content and thickness on magnetic properties of non-grain oriented silicon steels  
*Heejong Jung, Eunji Yu, SangBeom Kim, Jongryoul Kim*
- C1-15** Qualification protocol for hysteresis models of magnetic materials in static and dynamic modes. Application in design software.  
*T. P. Do, F. Sixdenier, L. Morel, E. Morin, L. Gerbaud, F. Wurtz*

## Session C2 - Grain-oriented and non oriented electrical steels II

*Tuesday, September 8*

- C2-01** Validation of a high efficiency AC rotating electrical machine magnetic circuit by particular tests at standstill  
*Samuel Lopez, Ludovic Lefebvre, Bertrand Cassoret, J.F. Brudny, J.N. Vincent*
- C2-02** Effect of hot band grain size on the texture evolution of 2%Si non-oriented steel during final annealing  
*Sebastião da C. Paolinelli, Marco A. da Cunha, André B. Cota*
- C2-03** Local ordering and magnetic anisotropy induced upon magnetic field or stress annealing in soft magnetic Fe-Si and Fe-Al alloys  
*Nikolai V. Ershov, Yurii P. Chernenkov, Vera A. Lukshina, Vladimir I. Fedorov*
- C2-04** Effect of warm rolling on textures of rolling and recrystallization in non-oriented 3% Si steel  
*Seil Lee, B. C. De Cooman*
- C2-05** Effect of strip thickness on magnetostriction of grain oriented silicon steel  
*Piotr Klimczyk, Philip Anderson, Anthony Moses, Martyn Davies*
- C2-06** On the correlation between microstructure, texture and magnetic induction in non oriented electrical steels  
*Juergen Schneider, Edgar Gomes, Kim Verbeken, Yvan Houbaert*
- C2-07** Magnetic properties of electrical steel sheets under various shape flux excitations  
*Shunji Yanase, Norio Kamegawa, Yasuo Okazaki*
- C2-09** Measurement of magnetic properties of non-oriented electrical steel sheet at liquid nitrogen temperature using single sheet tester  
*Daisuke Miyagi, Daizaburo Otome, Masanori Nakano, Norio Takahashi*
- C2-10** Magnetic quality texture and microstructure evolution during  $\alpha$ - $\gamma$ - $\alpha$  transformation in ULC steel sheeds  
*Jai Gautam, Roumen Petrov, Elke Leunis, Leo A.I. Kestens*
- C2-11** Study of iron loss characteristic of non-oriented electrical steel sheet under DC-biased magnetization  
*Daisuke Miyagi, Kuniyuki Kittaka, Masanori Nakano, Norio Takahashi*
- C2-12** Influence of compressive stress on magnetic properties of laminated electrical steel sheets  
*Daisuke Miyagi, Kohei Miki, Masanori Nakano, Norio Takahashi*

- C2-13** Some properties of factors of specific total loss components in electrical steel with different degree of Goss texture  
*Wojciech A. Pluta*
- C2-14** Magnetization processes in NO electrical steels  
*Felipe Bohn, André Gündel, Fernando J. G. Landgraf, Rubem L. Sommer*
- C2-15** Influence of decarburation conditions on the magnetic properties of a electrical semiprocessed steel  
*Kleiner Marques Marra, Ed Juarez Taiss, Vicente Tadeu Buono*
- C2-16** Grain-oriented electrical steel for segmented core motors  
*Takashi Terashima, Nobuo Shiga, Masayoshi Ishida*

## Session D1 - Fe-Ni, Fe-Co, amorphous and nanocrystalline alloys I

Monday, September 7

- D1-01** Magnetic measurements from low to high frequency on amorphous ribbon of  $\text{Co}_{67}\text{Fe}_4\text{B}_{14.5}\text{Si}_{14.5}$   
*Veronica Păltânea, Gheorghe Păltânea*
- D1-02** Fe-based microwire: structure and magnetic structure  
*G. Abrosimova, A. Aronin, N. Kholstinina*
- D1-03** Structure and properties of nanocrystalline alloys prepared by high pressure torsion  
*A. Aronin, G. Abrosimova, S. Dobatkin, D. Matveev, O. Rybcenko*
- D1-04** Effect of stress-annealing on the saturation magnetostriction of nanocrystalline  $\text{Fe}_{73.5}\text{Cu}_1\text{Nb}_3\text{Si}_{15.5}\text{B}_7$   
*Giselher Herzer, Sybille Flohrer, Christian Polak*
- D1-05** Microstructure of NiFe epitaxial thin films grown on MgO single-crystal substrates  
*Takahiro Tanaka, Mitsuru Ohtake, Fumiyoshi Kirino, Masaaki Futamoto*
- D1-06** Magnetic and magnetoimpedance properties of  $\text{Fe}_{73.5-x}\text{Mn}_x\text{Cu}_1\text{Nb}_3\text{Si}_{13.5}\text{B}_9$  ( $x = 0, 1, 3, 5, 7$ ) amorphous ribbons  
*N. Bayri, T. Izgi, V.S. Kolat, P. Sovak, S. Atalay*
- D1-07** Structure and magnetic properties of CoNi epitaxial thin films grown on MgO(100) single-crystal substrates  
*Yoichi Sato, Mitsuru Ohtake, Fumiyoshi Kirino, Masaaki Futamoto*
- D1-08** Viscous phenomena in magnetic and thermal properties of FeNi based glasses induced by cryo-treatments  
*Jozef Kováč, Balázs Vehovszky, Ladislav Novák, Antal Lovas*
- D1-09** Magnetization dynamics in wire shaped amorphous magnetic materials  
*Suman Sinha, Bipul Das, Kalyan Mandal*
- D1-10** Positron annihilation spectroscopy study on modified Finemet soft magnetic metallic glass  
*A. P. Srivastava, M. Srinivas, S. Sharma, D. Srivastava, G. K. Dey, B. Mazumdar, P.K. Pujari*
- D1-12** Study of the switching field in amorphous and nanocrystalline FeCoMoB microwire.  
*P. Klein, R. Varga, G. Badini, M. Vázquez*
- D1-13** Microstructural and magnetic properties of electrodeposited  $\text{Co}_x\text{Cu}_{100-x}$  films  
*Oznur Karaagac, Hakan Kockar, Mursel Alper*

- D1-14** Pressure effect on magnetic properties of  $Y_3Fe_{62}B_{14}$  phase in its amorphous and nano-crystalline states  
*Zdenek Arnold, Claire V. Colin, Hervé Mayot, Olivier Isnard, Jiri Kamarád*
- D1-15** Anisotropic magnetoresistance in amorphous microwires with different geometries  
*Karla J. Merazzo, Giovanni Badini-Confalonieri, Manuel Vázquez, Francisco Batallán*
- D1-16** Influence of the circular magnetic field and the external stress on the remagnetization process in Fe-rich amorphous wires  
*P. Gawroński, A. Chizhik, J. M. Blanco, J. Gonzalez*
- D1-17** Surface magnetic properties and Mössbauer spectroscopy of FeMoCuB and FeNiMoCuB ribbons  
*Ondrej Zivotsky, Yvonna Jiraskova, Kamila Hrabovska, Jaromir Pistora*
- D1-18** Novel  $Fe_{(97-x-y)}P_xB_yNb_2Cr_1$  glassy alloys with high magnetization and low loss characteristic for inductor core materials  
*Hiroyuki Matsumoto, Akiri Urata, Yasunobu Yamada, Akihisa Inoue*
- D1-19** Structural and magnetic properties of  $Ni_{45}Al_{45}C_{10}$  nanocrystalline alloys prepared by mechanical alloying process  
*Kontan Tarigan, Yong-Goo Yoo, Dong-Seok Yang, Suhk-Kun Oh, Seong-Cho Yu*
- D1-20** Magnetization process and GMI effect in as-cast nanocrystalline microwires  
*Sorin Corodeanu, Tibor-Adrian Óvári, Nicoleta Lupu, Horia Chiriac*

## Session D2 - Fe-Ni, Fe-Co, amorphous and nanocrystalline alloys II

Tuesday, September 8

- D2-01** GMI as a tool for characterizing the temperature dependence of anisotropy distribution in soft magnetic ribbons  
*K. R. Pirota, L. D. Valenzuela, G. Soares, F. Béron, S. K. Sharma, M. Knobel*
- D2-03** Influence of surfaces on magnetic properties of FeCoMoCuB nanocrystalline ribbons.  
*Pavol Butvin, Beata Butvinová, Peter Švec, Gabriel Vlasák, Dušan Janičkovič*
- D2-04** Low core loss of FeSiBPCu nanocrystalline alloy with high Bs of 1.9T  
*Akihiro Makino, Takeshi Kubota, Shoji Susa, He Men, Kunio Yubuta, Akihisa Inoue*
- D2-05** Effect of Co on magnetic microstructure of Fe-Mo-Cu-B-type amorphous alloys  
*Marcel Miglierini, Julius Dekan, Peter Svec, Dusan Janickovic*
- D2-06** Magnetic microwires with field induced helical anisotropy for coil-less fluxgate  
*M. Butta, P. Ripka, G. Infante, G.A. Badini-Confalonieri, M. Vázquez*
- D2-07** Surface magnetization processes in amorphous microwires  
*Horia Chiriac, Mihaela Lostun, Tibor-Adrian Óvári*
- D2-08** Magnetic behaviour of FeCuNbSiB/CoPt multilayered glass-coated microwires  
*Horia Chiriac, Firuta Borza, Sorin Corodeanu*
- D2-09** Effect of crystallisation on the magnetic properties of FeCuNbBSi amorphous thin films produced by sputtering  
*Federica Celegato, Marco Coisson, Paola Tiberto, Franco Vinai, Marcello Baricco*
- D2-10** Influence of annealing and boron content on magnetization processes in amorphous alloys of type FeNbB  
*Piotr Kwapuliński, Józef Rasek, Zbigniew Stokłosa, Grzegorz Haneczok, Artur Chrobak, Józef Lelątko*
- D2-11** Pinning field distribution and microstructural study of thermal annealed Fe-Nb-Cu-Si-B wires  
*J. Olivera, M. Ipatov, R. Varga, M.L. Sánchez, V.M. Prida, B. Hernando, A. Zhukov*

- D2-12** Influence of the deposition potential on the properties of electrodeposited Co-Fe films  
*Turgut Sahin, Hakan Kockar, Mursel Alper*
- D2-13** Thermal optimisation of the magnetic properties of pulsed laser deposited FeCuNbSiB thin films  
*Maria Neagu, Marius Dobromir, Firuta Borza, Horia Chiriac, Laura Velicu, Marian Grigoras*
- D2-14** Effect of magnetization mechanisms and domain structure on complex permeability spectra: application on Fe-Ni thin sheets  
*Behzad Ahmadi, Herve Chazal, Thierry Waeckerle, James Roudet*
- D2-15** Structural evolution and magnetic properties of FeCoBSiNb BMGs with Cu additions  
*Mihai Stoica, Trisha Karan, Ran Li, Stefan Roth, Shanker Ram, Jürgen Eckert*
- D2-16** Thermal and magnetic properties in (FeBSi)NbY bulk glasses alloy  
*Rafael Piccin, Marcello Baricco, Paola Tiberto, Nicoleta Lupu, Franco Vinai*
- D2-17** Morphological, magnetic and microstructural study of Fe/Co multilayers grown on MgO (100) substrates  
*Massimo Carbucicchio, Roberta Ciprian, Giuseppe Palombarini*
- D2-18** Process optimization of electroplating CoFe with a high saturation flux density in MEMS applications  
*Jue Chen, Hans H. Gatzert*
- D2-19** Measurement and analytical modeling of the  $\Delta E$  effect in a bulk iron-cobalt alloy  
*Olivier Hubert, Laurent Daniel, Robleh Waberi*
- D2-20** Giant magneto impedance effect in thin zinc oxide coated on Co based amorphous ribbons  
*Asli A. Taysioglu, Y. Kaya, A. Peksoz, K.S. Akay, N. Derubasi, G. Irez, G. Kaynak*

## Session D3 - Fe-Ni, Fe-Co, amorphous and nanocrystalline alloys III

Wednesday, September 9

- D3-01** Influence of ribbon width and annealing conditions on giant magneto-impedance effect in Co-based amorphous ribbons  
*Asli A. Taysioglu, Ahmet Peksoz, Naim Derebasi, Gokay Kaynak*
- D3-02** Phase analysis of nanocrystalline alloys  
*István Meszaros, Lajos K. Varga*
- D3-03** Magnetic transactions in Hitperm-type Fe-Ni-Nb-B system  
*Peter Švec, Marcel Miglierini, Július Dekan, Jana Turčanová, Gabriel Vlasák, Ivan Škorvánek, Dušan Janičkovič, Peter Švec-Sr.*
- D3-04** Modelling hysteresis loops of  $\text{Fe}_{73.5}\text{Cu}_1\text{Nb}_3\text{Si}_{15.5}\text{B}_7$  nanocrystalline  
*M. Cuneyt Hacıismailoglu, Naim Derebasi*
- D3-05** Melt-spun Fe-Co-B-Cu alloys with high magnetic flux density for relax-type magnetometers  
*Alexius Klinda, Jozef Marcin, Peter Švec-Jr., Dušan Praslička, Josef Blažek, Jozef Kováč, Peter Švec-Sr., Ivan Škorvánek*
- D3-06** Localisation effects in Fe based amorphous alloys doped by 3d- and 4d-elements  
*Mykhailo P. Semenko, Anton V. Nosenko, Mykola I. Zakharenko*
- D3-07** Thermal and soft magnetic properties of bulk amorphous  $\text{Fe}_{36}\text{Co}_{36}\text{B}_{19.2}\text{Si}_{4.8}\text{X}_4$  ( $\text{X}=\text{Nb}$  or  $\text{Mo}_{0.5}\text{W}_{0.5}$ ) alloys by centrifugal casting  
*Ilker Kucuk, Muratahan Aykol, Mehmet Yildirim, M. Vedat Akdeniz, Amdulla O. Mekhrabov*
- D3-08** Minor loop scaling rules for finemet type nanocrystalline cores  
*Lajos K. Varga, György Kovács, Jenő Takács*
- D3-09** Study of ferromagnetic FeNi nanowires embedded in anodic aluminium oxide (AAO) templates  
*Sang-Geun Cho, Bongyoung Yoo, Ki Hyeon Kim, Jongryoul Kim*
- D3-10** Ferromagnetic resonance peculiarities in nanocrystalline cobalt films  
*Boris Belyaev, Andrey Izotov, Simeon Kiparisov*
- D3-11** The structure characterization, thermal stability and magnetic properties of Fe-Co-B-Si-Nb bulk amorphous alloys  
*Sabina Lesz, Rafał Babilas, Marcin Napiątek, Ryszard Nowosielski*
- D3-12** Crystallization and magnetic cluster formation in of  $\text{Fe}_{80-x}\text{Mo}_x\text{Si}_6\text{B}_{14}$  metallic glasses  
*A. V. Nosenko, M. G. Babich, M. P. Semenko, O. I. Nakonechna, M. I. Zakharenko*

- D3-13** Effect of field annealing on the magnetic behaviour of Co-rich nanocrystalline ribbons  
*Josef Marcin, Jana Turčanová, Ján Hanko, Dušan Janičkovič, Peter Švec, Ivan Škorvánek*
- D3-14** Tailoring of hysteresis loop shape in magnetostatically-coupled microwires  
*Valeria Samsonova, Mikhail Ipatov, Maxim Ilyn, Valentina Zhukova, Nikolay Perov, Arcady Zhukov*
- D3-15** Production and characterization of electrodeposited Fe-Cu films  
*Ali Karpuz, Mursel Alper, Hakan Kockar*
- D3-16** The influence of the wet-milling process on the magnetic properties of the Supermalloy magnetic nanocrystalline powders  
*Bogdan Neamțu, Olivier Isnard, Ionel Chicinaș, Viorel Pop*
- D3-17** Microstructure, low field magnetic properties and magnetocaloric effect in bulk amorphous  $\text{Fe}_{60}\text{Co}_{(5+x)}\text{Zr}_{(8-x)}\text{Mo}_5\text{W}_2\text{B}_{20}$  ( $x = 0$  or  $5$ ) alloys  
*J. Olszewski, M. Napiątek, J. Zbroszczyk, M. Dośpiał, M. Hasiak, T. Mydlarz, J. Kaleta, J. Gondro, W. Ciurzyńska, J. Świerczek*
- D3-18** Kerr effect study of domain nucleation and domain wall motion in amorphous microwires  
*A. Chizhik, A. Zhukov, J.M. Blanco, J. Gonzalez*
- D3-19** Nonlinear magnetoimpedance in field- and stress-annealed amorphous ribbons  
*Luděk Kraus*
- D3-20** Tensile stress influence on the ferromagnetic resonance in amorphous microwires  
*V. Raposo, G. Infante, M. Zazo, J. Iñiguez*
- D3-21** Thermal evolution of  $\text{Fe}_{73.5}\text{Si}_{13.5}\text{B}_9\text{Nb}_{3-x}\text{Mo}_x\text{Cu}_1$  ribbons  
*Josefina M Silveyra, Victoria J Cremaschi, Diego F Coral, Andrés Rosales-Rivera, Dušan Janikovic, Peter Švec*
- D3-22** Interface phenomena and magnetic properties of Fe/Cr multilayers  
*Roberta Ciprian, Massimo Carbucicchio, Giuseppe Palombarini*

## Session E1 - Soft ferrites, powder cores and composite materials I

*Monday, September 7*

- E1-01** Mössbauer studies of  $\text{Sn}_{1-x}\text{Fe}_x\text{O}_{2-\delta}$  powders prepared by a sol-gel method  
*Yong Hui Li, Sam Jin Kim, In-Bo Shim, Chul Sung Kim*
- E1-02** Low loss Magnetic and dielectric composite materials for antenna  
*Sang-Hoon Park, Won-Ki Ahn, Jun-Sig Kum, Jeong-Keun Ji, Ki-Ho Kim, Won-Mo Seong*
- E1-03** Synthesis and characterization of magnetic meta-material  $\text{Fe}_{30}\text{Ni}_{70}/(\text{Ni}_{0.4}\text{Zn}_{0.4}\text{Cu}_{0.2})\text{Fe}_2\text{O}_4$  for high frequency applications  
*Mehdi Ammar, Martino LoBue, Richard Barrué, Yannick Champion, Guillaume Wang, Arnaud Brosseau, Claude Éstournes, Frédéric Mazaleyrat*
- E1-04** Structure and properties of nanocomposite soft magnetic materials  
*Jaroslav Konieczny, Izabela Wnuk, Leszek A. Dobrzanski*
- E1-05** Magnetic properties of  $\text{SiO}_2$  coated  $\text{NiFe}_2\text{O}_4$  nanoparticles  
*Arka Chaudhury, Kalyan Mandal*
- E1-06** Particle size and concentration effect on permeability and EM-wave absorption properties of hybrid ferrite polymer composites  
*Rastislav Dosoudil, Marianna Ušáková, Jaroslav Franek, Jozef Sláma, Anna Grusková*
- E1-07** Carbon nanotube coated soft magnetic carbonyl iron particles and their magnetorheology  
*Fei Fei Fang, Hyoung Jin Choi, Jae Ho Kim*
- E1-08** Magnetic permeability of a ferrofluid emulsion  
*Yury I. Dikansky, Arthur R. Zakinyan*
- E1-10** Characterization of superparamagnetic iron oxide nanoparticles synthesized in air atmosphere  
*Oznur Karaagac, Seda Beyaz, Hakan Kockar, Taner Tanrisever*
- E1-11** Permeability of soft magnetic FeCoV-composites for varying filler fractions  
*Mathias Anhalt, Bernd Weidenfeller*
- E1-12** Properties of powder compressed cores made of  $\text{Fe}_3\text{O}_4$ -coated iron powder  
*Pyeongwoo Jang, Sooyong Joo, Gwangbo Choi*
- E1-13** Surface coated superparamagnetic magnetite nanoparticles  
*Min-Jung Kim, Yong-Ho Choa, Yujung Cha, Baekil Nam, Dong Ho Kim, Ki Hyeon Kim*

- E1-14** Analysis of selected Be-substituted NiZn ferrites  
*Jozef Sláma, Elemír Ušák, Martin Šoka, Anna Grusková, Mariana Ušáková, Vladimír Jancůárik*
- E1-15** Study of magnetic losses in Mn-Zn ferrites under biased and asymmetric excitation waveforms  
*Martino LoBue, Frédéric Mazaleyrat, Vincent Loyau*
- E1-16** Analysis of magnetic properties the substituted Li ferrites  
*Jozef Sláma, Anna Grusková, Martin Šoka, Mariana Ušáková, Vladimír Jancůárik, Jaroslav Franek*
- E1-17** A physical aspect of the magnetic spectra analysis of ferrites and ferrite-polymers  
*Martin Šoka, Jozef Sláma, Rastislav Dosoudil, Vladimír Olah, Peter Široký*
- E1-18** Control of spin-dependent-magnetoresistance by regulation of heat treatment temperature for magnetite nano-particle sinter  
*H. Kobori, T. Asahi, A. Yamasaki, A. Sugimura, T. Taniguchi, A. Ando, H. Kawanaka, Y. Naitoh, T. Shimizu*

## Session E3 - Soft ferrites, powder cores and composite materials II

Wednesday, September 9

- E3-01** Hydrothermal synthesis of ultrafine particles of hexagonal ferrites ( $\text{BaFe}_{12}\text{O}_{19}$ ,  $\text{SrFe}_{12}\text{O}_{19}$ ) and the preparation of their stable suspensions  
*Darinka Primc, Darko Makovec, Miha Drofenik*
- E3-02** Intrinsic permeability of Fe and Fe-Si powders deduced from measured permeability of composites by mixing rules  
*Dmitry A. Petrov, Eugene P. Yelsukov, Konstantin N. Rozanov, Svetlana F. Lomayeva, Alexey V. Osipov, Sergey N. Starostenko*
- E3-03** XPS surface characterization of gas atomized, phosphate coated Fe-6% wt.Si soft magnetic powder particles  
*Manjunath B. Balehosur, Steven J. Savage*
- E3-04** Magnetic properties of O-carboxymethylchitosan bounded iron oxide particles  
*A. Dusza, M. Wojtyniak, N. Nedelko, A. Ślawska-Waniewska, J.M. Greneche, C.A. Rodrigues, C. Burger, C. Stringari, A. Debrassi*
- E3-05** Effect of iron-oleate precursor on the magnetic properties of magnetite nanoparticles  
*Seda Beyaz, Fatmahan Ozel, Hakan Kockar, Taner Tanrisever*
- E3-06** Measurement of transient magnetic AC-properties of NiZn-ferrites  
*Paul Fulmek, Bernhard Schweighofer, Peter Haumer, Hannes Wegleiter, Gert Holler*
- E3-07** A fabrication of chip inductor using LTCC NiZnCu ferrite thick films  
*K.W. Moon, S.G. Cho, K.W. Jeon, M. Kang, J. Kim*
- E3-08** The AC magnetic properties of Fe based composite materials  
*Peter Kollár, Ján Füzér, Radovan Bureš, Mária Fáberová*
- E3-09** Soft magnetic properties of nanostructured Vitroperm alloy powder cores  
*Ján Füzér, Peter Kollár, Jana Füzérová, Stefan Roth*
- E3-10** Mössbauer Studied of Superparamagnetic Properties  $\text{MnFe}_2\text{O}_4$  Nanoparticles  
*Seung Wha Lee, Jae-Gwang Lee, Kwang Pyo Chae, Woo Hyun Kwon, Sung Wook Hyun, Chul Sung Kim*
- E3-11** Predicting the loss dependence on temperature in soft ferrites  
*Cinzia Beatrice, Fausto Fiorillo*

- E3-12** Field induced microwave absorption in Ni ferrite nanoparticles  
*Pablo Hernández-Gómez, José María Muñoz, Manuel A. Valente*
- E3-13** The magnetic and electric properties of NiZn-ferrite film using the droplet spray method  
*Ming Da Yang, Mean Jue Tung*
- E3-14** The influence of the recrystallization on the magnetic properties of the nanocrystalline soft magnetic composites based on Ni<sub>3</sub>Fe  
*Bogdan Neamțu, Olivier Geoffroy, Olivier Isnard, Ionel Chicinaș, Florin Popa, Viorel Pop*
- E3-15** Validation of a new core model for an RM-type ferrite core by 2D Finite Elements  
*Rosa Ana Salas, Jorge Pleite*
- E3-16** Magnetoelectric measurements of PZT-cobalt ferrite composites in pulsed magnetic field  
*M.E. Botello-Zubiate, A. Hurtado-Macias, R.C. Santillán-Rodríguez, J. González-Hernández, J.A. Matutes-Aquino*
- E3-17** Fe<sup>2+</sup> content and magnetic losses of manganese –zinc ferrite  
*F. J. G. Landgraf, Victoria Lázaro-Colán, S.R. Janasi*
- E3-18** Estimation of internal stresses by nanoindentation in ferromagnetic amorphous microwires covered by a glass shell  
*Elena Zamyatkina, Mikhail Petrzhhik, Paola Tiberto, Rafael Piccin, Marcello Baricco*

## Session F1 - Thin films, metamaterials, novel and special materials I

Monday, September 7

- F1-01** Elastomagnetic and elastoresistive effects in CoFe films produced by femtosecond pulsed laser deposition  
*G. Ausanio, V. Iannotti, S. Amoruso, R. Bruzzese, X. Wang, L. Lanotte*
- F1-02** Crystallization processes in FeNbZrBCu amorphous ribbons and thin films  
*Marco Coïsson, Federica Celegato, Elena Olivetti, Paola Tiberto, Franco Vinai, Shashank N. Kane*
- F1-03** Epitaxial growth of fcc-Co<sub>x</sub>Ni<sub>100-x</sub> thin films on MgO(110) single-crystal substrates  
*Mitsuru Ohtake, Yuri Nukaga, Yoichi Sato, Fumiyoshi Kirino, Masaaki Futamoto*
- F1-04** Crystallization and magnetic properties of ZnSn-substituted barium ferrite films  
*Darja Lisjak, Federica Celegato, Elena Olivetti, Marco Coïsson, Massimo Pasquale*
- F1-05** Annealing effect on Gilbert damping parameter of Heusler alloys thin films  
*R. Yilgin, Ramazan Topkaya, Abdullah N. Kocbay, Bekir Aktas, Yuya Sakuraba, Mikihiro Oogane, Yasuo Ando, Terunobu Miyazaki*
- F1-06** Effect of rapid solidification on magnetostriction and microstructure in melt-spun Fe-Al ribbons  
*Reiko Sato Turtelli, Gabriel Vlăsak, Frank Kubel, Nasir Mehmood, Martin Kriegisch, Roland Grössinger, Herbert Sassik*
- F1-07** Ferromagnetic resonance phenomena in concentric multilayer microwire systems  
*G. A. Badini Confalonieri, G. Infante, J. Torrejon, M. Vázquez*
- F1-08** Tunneling magnetoresistance in Co-Ni-N/Al granular thin films  
*Dumitrita Pînzaru, Sorin-Iulian Tanase, Petronela Pascariu, Lavinia Vlad, Marius Dobromir, Violeta Georgescu*
- F1-09** Magnetic properties of doped BaTiO<sub>3</sub> thin films  
*E.Venkata Ramana, H.W.Park, Miyoung Kim, B. W. Lee, C. U. Jung*
- F1-10** Effect of Ni/Mn stoichiometric variations in melt spun NiMnGa ferromagnetic shape memory alloys  
*A.K. Panda, S.Singh, M.Ghosh, R.K.Roy, Amitava Mitra*
- F1-11** Influence of vertical magnetized MnBi layers on the permeability of permalloy structures  
*S. Hansen, Z. Celinski, H.H. Gatzert*

- F1-12** Stripe and nematic phases in ferromagnetic ultrathin films with perpendicular anisotropy  
*Daniel A. Stariolo, Daniel G. Barci*
- F1-13** Structure, magnetostriction and magnetoelastic coupling coefficient of  $\text{Fe}_{100-x}\text{Ga}_x$  melt-spun ribbons  
*Nicoleta Lupu, Mihaela Lostun, Gabriel Ababei, Carmen Felicia Dascalu, Horia Chiriac*
- F1-14** Electrodeposition and study of asymmetric magnetoresistance of [Co / Zn] granular multilayers  
*Petronela Pascariu, Lavinia Vlad, Violeta Georgescu*
- F1-15** Properties of Fe-Mn-Si-Al based ferromagnetic shape memory wires  
*Shoichiro Yamamoto, Takashi Todaka, Masato Enokizono*

## Session F3 - Thin films, metamaterials, novel and special materials II

Wednesday, September 9

- F3-01** Properties of Fe-Mn-Si based ferromagnetic shape memory ribbons  
*Hideki Shuto, Takashi Todaka, Masato Enokizono*
- F3-02** Structural characteristics and magnetic properties of Fe oxide nanoparticles  
*M. Pasquale, E. Olivetti, P. Rizzi, V. A. Coleman, J. Herrmann*
- F3-03** Magnetic characterization of water suspensions of iron nanoparticles for groundwater remediation  
*Marco Coisson, Rajandrea Sethi, Xue Dingqi, Carlo Appino*
- F3-04** Morphology and magnetic structure of sputtered Co Quantum-dot Cellular Automata patterns obtained by Electron Beam Lithography  
*Salvatore Giurdanella, Alessandro Chiolerio, Edvige Celasco, Paola Martino, Paolo Allia, Paolo Pandolfi, Federica Celegato*
- F3-05** Magnetization properties of FeTb thin films  
*A. Magni, F. Celegato, M. Coisson, E.S. Olivetti, M. Pasquale, C.P. Sasso*
- F3-06** Modeling of plastic deformation in ferromagnetic thin films  
*Martin J. Sablik, Wilhelmus J. Geerts, Fernando J.G. Landgraf, Marcos F. de Campos*
- F3-07** Effects of growth parameters on magnetism and structure in NiMnGa thin films deposited on MgO  
*Franca Albertini, Simone Fabbri, Francesca Casoli, Lucia Nasi, Vladimir A. Chernenko, Lara Righi, Massimo Solzi, Javier Olvera Cervantes, Stefano Besseghini, Andrea Gambardella*
- F3-08** Magnetic properties of exchange coupled soft Py/Cr/Py thin trilayer films  
*Bekir Aktaş, Abdullah N. Koçbay, Ramazan Topkaya, Mustafa Özdemir, Mustafa Erkovan, Osman Öztürk*
- F3-09** Magnetic properties of Fe-Co nanocomposite films  
*Adriana Lancok, Marcel Miglierini, Frantisek Fendrych, Mariana Klementova*
- F3-10** Current-induced magnetization reversal in [Py/Cu] magnetic multilayered nanowires  
*Horia Chiriac, Nicoleta Lupu, Spyros Krimpalis, Oana Dragos, Marian Grigoras*
- F3-11** High frequency response of Permalloy nanonetworks prepared by electrodeposition  
*André Gündel, José F. G. Filho, Felipe Bohn, Alexandre D. C. Viegas, Renata A. Simão, Rubem L. Sommer*

- F3-12** Magnetic properties of FeSiB powders, suspensions and in rigid matrix  
*Horia Chiriac, George Stoian*
- F3-13** Magnetostriction of Fe-Ti alloys  
*C. Bormio-Nunes, R. Sato Turtelli, A. R. Belarmino, C. T. Santos, V. C. Ugeda, M. Atif, R. Grössinger*
- F3-14** Magnetic properties of Zr<sub>9</sub>Ni<sub>11</sub> intermetallic compound  
*V. Provenzano, R.D. Shull, R. M. Waterstrat, L. H. Bennett, E. Della Torre, H. Seyoum*
- F3-15** Yttrium iron garnet epitaxial films doped with rhodium: <sup>57</sup>Fe NMR study  
*Šárka Toufarová, Vojtěch Chlan, Helena Štěpánková, Karel Kouřil, Miroslav Kučera, Karel Nitsch*
- F3-16** Ordered superparamagnetic nanocomposite for high density storage media  
*Adriana Zeleňáková, Jozef Kováč, Vladimír Zeleňák*
- F3-17** Single domain-wall dynamics in ferromagnetic/superconducting heterostructures grown on twinned LaAlO<sub>3</sub> substrate  
*F. Laviano, R. Gerbaldo, G. Ghigo, L. Gozzelino, G. Leopardo, B. Minetti, E. Mezzetti, P. Przyslupski, A. Wisniewski*

## Session G2 - Magnetic measurements and instrumentations I

*Tuesday, September 8*

- G2-01** Characterization and modelling of temperature influence on global magnetic properties  
*A.T. Bui, N. Burais, L. Morel, F. Sixdenier, Y. Zitouni*
- G2-02** Magnetostriction measurements by using dual heterodyne laser interferometers  
*Setareh Gorji Ghalamestani, Tom G.D. Hilgert, Lieven Vandeveldde, Joris J.J. Dirckx, Jan A.A. Melkebeek*
- G2-03** Temperature dependence of magnetic descriptors of Magnetic Adaptive Testing  
*Gábor Vértesy, Tetsuya Uchimoto, Ivan Tomáš*
- G2-04** Aging evaluation in modified 9Cr-1Mo steel by reversible magnetic permeability  
*Kwon-sang Ryu, Soo-Yung Park, Jong-seo Park, Seung-hoon Nahm*
- G2-05** Magnetic Barkhausen noise for characterization of recovery and recrystallization  
*Kizkitza Gurruchaga, Ane Martínez-de-Guereñu, Mikel Soto, Fernando Arizti*
- G2-06** Local measurement of Barkhausen noise and its correlation with hysteresis parameters of electrical steels  
*Oleksandr Stupakov, Volodymyr Stoyka, Richard Wood*
- G2-07** Magnetic after-effect study of the Cu-precipitation in thermally aged Fe-1% Cu alloys  
*Boris Minov, Lode Vandenbossche, Milan Konstantinović, Luc Dupré*
- G2-08** Barkhausen noise in the ion implanted amorphous ribbon  
*Hoon Song, Duck-gun Park*
- G2-09** Local magnetic measurements in magnetic circuits with highly non uniform electromagnetic fields  
*Ahmed Abou-Elyazied Abdallah, Luc Dupré*
- G2-10** Iron thin films elaboration and characterization  
*Adel Bendjerad, S.E.H. Abaidia, Abdelrrahim Guittoum*
- G2-11** The applicability of step-lap lamination technology for Single Sheet Tester magnetic yoke improvement  
*Marian Soinski, Roman Rygal, Wojciech Pluta, Robert Pytlech, Kamil Szafran, Przemyslaw Pinkosz*

- G2-12**      Magnetostriction measurement of grain oriented electrical steel sheet using fiber optic displacement sensor  
*Derac Son, Jongho Kim, Suhwan Lee, Oh-Yeoul Kwon*
- G2-13**      Data collapse of energy loss in soft magnetic materials a way for testing measurement set  
*Krzysztof Sokalski, Jan Szczygłowski*
- G2-14**      Measurement of magnetic losses in soft ferrites by thermal method  
*Vincent Loyau, Frédéric Mazaleyrat, Martino LoBue*
- G2-15**      Harmonic vibration analysis of transformer sheets  
*Adam Schiffer, Amalia Ivanyi*
- G2-16**      Use of global magnetic measurements for the local identification of magnetic material degradation due to cutting  
*Guillaume Crevecoeur, Luc Dupré*
- G2-17**      Double coil-less fluxgate in bridge configuration  
*M. Butta, P. Ripka, Joaquín Pérez Navarrete*
- G2-18**      Measurement of the DC hysteresis of soft magnetic materials under high tensile stress  
*Owen J. Thomas, Stuart A.C. Harmon, Michael J. Hall, Harshad V. Patel*
- G2-19**      Equivalence of measurements on soft magnetic materials in the UK  
*Michael Hall, Harvey Smith, Philip Anderson*
- G2-20**      Short circuit current measurements between transformer sheets  
*Carl A. Schulz, Stéphane Duchesne, Daniel Roger, Jean-Noël Vincent*
- G2-21**      Using an open circuit measurement technique to determine material properties  
*Harshad V. Patel, Owen J. Thomas, Michael J. Hall, Stuart A.C. Harmon*

## Session G3 - Magnetic measurements and instrumentations II

Wednesday, September 9

- G3-01**            Investigations on the permeability of soft magnetic micro structures  
*Matthias Bedenbecker, Hans H. Gatzert*
- G3-02**            Fatigue evaluation for a ferritic stainless steel (SUS430) by the eddy current method using the pancake type coil  
*Mohachiro Oka, Yuji Tsuchida, Terutoshi Yakushiji, Masato Enokizono*
- G3-03**            Barkhausen noise properties measured by different methods for deformed Armco samples  
*Boleslaw Augustyniak, Leszek Piotrowski, Marek Chmielewski, Kostas Kosmas, Evangelis Hristoforou*
- G3-04**            Magnetic thin film wattmeter using planar hall effect  
*Hiroaki Tsujimoto, Hirofumi Toratani, Hiroshi Yoshida*
- G3-05**            Examination of magnetic properties of magnetic materials at high temperature using a ring specimen  
*Norio Takahashi, Sadayuki Morishita, Daisuke Miyagi, Masanori Nakano*
- G3-06**            Determination of the heating effect of magnetic fluid in alternating magnetic field  
*Miloš Beković, Anton Hamler*
- G3-07**            Inspection of surface cracks in laminated steel  
*Yavuz Ege, Mustafa Göktepe*
- G3-08**            Magnetic flux leakage inspection of rebars in concrete blocks  
*Deniz Perin, Mustafa Göktepe*
- G3-09**            Detection of fatigue limit of materials thanks to piezomagnetic measurements  
*Said Lazreg, Olivier Hubert*
- G3-10**            Magnetisation amplitude and stress dependence of the Barkhausen noise in structural steel  
*L. Harasztosi, I.A. Szabó, A. Bükki-Deme, Gy. Pozsgay*
- G3-11**            Improvement of non-linear magnetic response in magnetostatically-coupled microwires  
*Valeria Samsonova, Mikhail Ipatov, Maxim Ilyn, Valentina Zhukova, Nikolai Perov, Arcady Zhukov*
- G3-12**            Solving the field gradient problem of the surface field measurements on open samples  
*Oleksiy Perevertov*

- G3-13** Magnetizing system for compensation SSTs  
*Ivan Zemánek*
- G3-14** New concept hybrid magneto-piezoelectric magnetic field sensor  
*Karol Kuczyński, Adam Bieńkowski, Andrzej Leszczyński*
- G3-15** Design of a test rig for measurement of rotational magnetic losses in soft magnetic composite materials  
*Ahmed Chebak, Philippe Viarouge, Jérôme Cros*
- G3-16** Half-turn search coils for evaluation of non-uniform flux density in steel strip  
*Jeremy P. Hall*
- G3-17** Improving the response of magnetic sensors using planar Hall effect in spin-valve structures  
*Marius Volmer, Jenica Neamtu*
- G3-18** On the need for a consistent method of reporting the magnetic properties of electrical steels  
*Steve Sprague*
- G3-19** Effects of magnetic phases on the ECT signal in the steam generator tubes  
*Duck-Gun Park, Kwon-Sang Ryu, Derac Son, Yong-Moo Cheong*
- G3-20** The effect of magnetostriction on the microwave performance of Fe-N films  
*Igor T. Iakubov, Andrey N. Lagarkov, Sergey N. Maklakov, Patimat M. Omarova, Alexey V. Osipov, Konstantin N. Rozanov, Ilya A. Ryzhikov, Sergey N. Starostenko*

Session H1 - Transformers, motors, actuators and other power applications I  
Monday, September 7

- H1-01** Influence of magnetic materials on claw pole machines behavior  
*L. Li, A. Kedous-Lebouc, A. Foggia, J.C. Mipo*
- H1-02** Photoacoustic spectroscopy of surface-dressed magnetic nanoparticles for transformer applications  
*Paulo C. Morais, Anailde S. Silva, Eliane S. Leite, Vijayendra K. Garg, Aderbal C. Oliveira, Weslye R. Viali, Patrícia P.P. Sartoratto*
- H1-03** Derating of distribution transformers under non-sinusoidal supply voltages and unbalanced non-linear loads  
*Jawad Faiz, Ashkan Farazmand, Bashir Mahdi Ebrahimi*
- H1-04** Extended flux tubes method for calculation of the flux densities waveforms in various sections of a switched reluctance motor  
*Mojtaba Babaie, Jawad Faiz, Bashir Mahdi Ebrahimi, Maryam Bahramgiri*
- H1-05** Analysis and design of a novel axial flux PM motor with SMC cores for pump applications  
*Mauro Andriollo, Manuel De Bortoli, Giovanni Martinelli, Augusto Morini, Andrea Tortella, Massimo Furlan*
- H1-06** Harmonic reduction in a inverter-fed wound toroidal core through the selective harmonic elimination technique  
*Nedim Tutkun, Mehmet Ibrahimbas, Fevzi Arslan*
- H1-07** Electromagnetic actuator to reduce vibration sources  
*Thibaut Chailloux, Laurent Morel, Fabien Sixdenier, Olivier Garrigues*
- H1-08** Inrush current modeling in a single-phase transformer  
*Jawad Faiz, S. Saffari*
- H1-09** Prevention of iron core saturation in multi-winding transformers for DC-DC converters  
*Gorazd Štumberger, Beno Klopčič, Klemen Deželak, Drago Dolinar*
- H1-10** Precision study of leakage inductance in a transverse flux permanent magnet generator by 3D finite element transient analysis  
*Seyed Mohsen Hosseini, Javad S. Moghani*
- H1-11** Novel algorithm for calculation of losses in nonlinear core of three phase power transformers  
*Seyed Ali Mousavi, Hossein Mohseni, Amir A. Shayegani Akmal*
- H1-12** A new magnetic oscillation-type dc-ac power converter using bridge-connected magnetic circuit  
*Shinichi Okanuma, Yoshitomo Ogata*

- H1-14** Losses in sensorless controlled permanent-magnet synchronous machines  
*Peter Sergeant, Frederik De Belie, Luc Dupré*
- H1-15** Introduction of flux barriers and permanent magnets in induction motor geometries - magnetic field and iron loss analysis  
*Tine Marčič, Bojan Štumberger, Gorazd Štumberger, Peter Vrtič, Peter Pišek*
- H1-16** Flux distribution analysis in three phase Si-Fe wound transformer cores  
*G. Loizos, T.D. Kefalas, A.G. Kladas, A.T. Souflaris*
- H1-17** Common mode transformers requirements for active EMI filters in induction motor drives  
*Maria Carmela Di Piazza, Antonella Ragusa, Gianpaolo Vitale*
- H1-18** Effects of dc-magnetization components on the three-dimensional loss distribution of transformer cores  
*Edin Mulasalihovic, Helmut Pfützner*
- H1-19** Impact of anisotropy on flux distributions in transformer cores  
*Edin Mulasalihovic, Helmut Pfützner*
- H1-21** Experimental study of the magnetic properties in a double star induction machine under distorted magnetization  
*T. Hamdouche, H. Hammache, D. Moussaoui, K. Marouani*

Session H2 - Transformers, motors, actuators and other power applications II  
*Tuesday, September 8*

- H2-01**      An engineering approach for the inversion and inclusion of the Preisach model in the finite-element analysis of magnetic problems  
*Emad Dlala*
- H2-02**      Magnetic core model of a middle frequency resistance spot welding transformer  
*Vojko Podlogar, Beno Klopčič, Gorazd Štumberger, Drago Dolinar*
- H2-03**      Practical and theoretical investigations on coil-less rotating actuator using inverse magnetostrictive effect  
*Olivier Geoffroy, Daniel O'Brien, Mohamed Trifa, Orphée Cugat, Jérôme Delamare*
- H2-04**      New protection method against compression stress in magnetic cores for medium voltage instrument transformer  
*Robert Pytlech, Jarosław Chojnacki, Roman Rygał*
- H2-05**      Computation of the losses in a laminated ferromagnetic material under bi-directional induction excitation  
*O. de la Barrière, H. Ben Ahmed, M. Gabsi, M. LoBue*
- H2-06**      Experimental characterisation of interlamination shorts in transformer cores  
*Carl A. Schulz, Daniel Roger, Stéphane Duchesne, Jean-Noël Vincent*
- H2-07**      Analysis of induced current and electromagnetic braking force in an XY-Actuator with soft magnetic composite in the armature core  
*Ály Ferreira Flores Filho, Nolvi Francisco Baggio Filho*
- H2-08**      Influence of magnetic saturation on precise diagnosis of broken rotor bars in induction motors  
*Bashir Mahdi Ebrahimi, Jawad Faiz*
- H2-09**      Commutation signal detection of a permanent-magnet brushless motor using search coils wound on auxiliary teeth  
*Liang-Yi Hsu, Te-Min Kuo, Mi-Ching Tsai*
- H2-10**      Design of magnetic actuator with nonlinear ferromagnetic materials using level-set based topology optimization  
*Sang-in Park, Seungjae Min*
- H2-11**      An inverse approach for magnetic material characterization of an EI core electromagnetic inductor  
*Ahmed Abou-Elyazied Abdallah, Peter Sergeant, Guillaume Crevecoeur, Luc Dupré*

- H2-12** Model and design of semi-active suspensions based on magnetorheological dampers  
*Domenico A. Lampasi, Giuseppe M. Veca*
- H2-13** An Efficient Approach for Evaluating Flux Distribution of a Newly Design Transverse Flux Motor  
*Yu-Sheng Hsu, Mi-Ching Tsai*
- H2-14** Balancing the Current Distribution in High-Current Furnace Transformer  
*Vahid Nabaei, Seyed Karim Miralikhani, Seyed Ali Mousavi, Mohsen Zandi*
- H2-15** Reactance effect of a line start permanent magnet motor  
*Po-Wei Huang, Shang-Hsun Mao, Mi-Ching Tsai*
- H2-16** Evaluation of stator and rotor iron loss in permanent magnet assisted synchronous reluctance motor during flux-weakening operation  
*Bojan Štumberger, Viktor Goričan, Gorazd Štumberger, Tine Marčič, Miralem Hadžiselimović, Mladen Trlep, Marko Jesenik, Anton Hamler, Peter Vrtič*
- H2-17** Hysteresis behaviors in single-domain actuator  
*Zung-Hang Wei, Yi-Ping Hsieh, Chia-Der Lin, Chiun-Peng Lee, Ying-Jiun Chen, Chun-Neng Liao*
- H2-18** Complete magnetically nonlinear dynamic model of an electromagnetic brake based on coenergy  
*Miralem Hadžiselimović, Peter Vrtič, Tine Marčič, Bojan Štumberger, Gorazd Štumberger, Ivan Zagradišnik*
- H2-19** Artificial neural network applied for detection of saturation level in the iron core of a welding transformer  
*Klemen Deželak, Jože Pihler, Gorazd Štumberger, Beno Klopčič, Drago Dolinar*
- H2-20** Effect of artificial burrs on the total power loss of a three phase transformer core  
*Rafal Mazurek, Philip Marketos, Anthony Moses, Jean-Noel Vincent*
- H2-21** Packet to packet variation of flux density in a 3 phase, 3 limb power transformer core  
*M. B. Balehosur, P. Marketos, A. J. Moses, J. N. Vincent*
- H2-22** Transient analysis of a single phase transformer using a 3D edge based formulation coupled to electric circuit  
*Peter Pišek, Peter Vrtič, Tine Marčič, Miralem Hadžiselimović, Mladen Trlep, Bojan Štumberger*

- H2-23** Design and test of a stress-dependent controller for magnetostrictive transducers  
*D. Davino, A. Giustiniani, C. Visone*
- H2-25** Modeling of improvement in impedance transfer for inductive switching devices, using high permeability soft materials  
*A. E. Umenei, Y. Melikhov, D.C. Jiles*
- H2-26** Finite Element Analysis of Rotor Slotting Saliency in Induction Motors for Sensorless Control  
*Marcello Pucci, Calogero Serporta*

## Session M3 - Sensors, high-frequency and electronic applications

Wednesday, September 9

- M3-01** A magneto-elastic sensor for screening of body position and mobility during sleep  
*Stefan Traxler, Helmut Pfützner, Alexander Schütter, Eugenijus Kaniusas, Karl Futschik*
- M3-02** Sensitivity and noise of transverse fluxgate with multiwire core  
*Pavel Ripka, M. Butta, Xiaoping Li, Fan Jie*
- M3-03** Differences in the magnetoimpedance of FeNi/Cu/FeNi multilayers with open and closed magnetic path  
*E. Fernández, A. García-Arribas, S. O. Volchkov, G. V. Kurlyandskaya, J. M. Barandiarán*
- M3-04** The change of magnetic properties in the ion irradiated amorphous ribbon  
*Duck-Gun Park, Hoon Song, Chandra S. Angani, Cheol-Gi Kim, Young-Moo Cheong*
- M3-05** Coupled micro-machined magnetic resonators for microwave signal processing  
*Giorgio DeAngelis, Takuro Koike, Andrea Lucibello, Romolo Marcelli, Emanuela Proietti*
- M3-06** Dependence of discharge position on breakdown characteristic of tunnelling magnetoresistive read heads  
*N. Jutong, D. Sompongse, S. Sanvito, A. Siritaratiwat*
- M3-07** Application of Magnetoelastic sensors for torque measurements in ball valves  
*Jacek Salach, Adam Bieńkowski, Roman Szewczyk, Marcin Safinowski, Aleksandra Kolano-Burian*
- M3-08** Large airgap magnetic core for high dynamic, high linearity open loop current sensor  
*Alexandre Kerlain, Vincent Mosser, Youcef Haddab, Hartman Van Wyk*
- M3-09** A differential analog amplification circuit for small signals from induction coil sensors  
*Mauricio Rigoni, Afrânio C. Antonio-Jr., Túlio L. dos Santos, Nelson J. Batistela, Nelson Sadowski*
- M3-10** A current sensor for use in evaluation of metal oxide surge arresters  
*Mauricio Rigoni, Túlio L. dos Santos, Nelson J. Batistela, Nelson Sadowski, Patrick Kuo-Peng*

- M3-11** Bending stress dependence of magnetoimpedance in a Co-rich nearly magnetostriction glass-coated microwire  
*S. Larumbe, J. Olivera, J.I. Pérez-Landazábal, V. Recarte, G. Vargas, C. Gómez-Polo*
- M3-12** A Local Two-dimensional Vector Magnetic Sensor with Piercing Needles for Insulation Coating of Silicon Steel Sheets  
*Shigeru Aihara, Eiji Umehara, Yasuhiro Shimoji, Masato Enokizono*
- M3-13** Effect of a tunnel junction size on the exchange anisotropy dispersion  
*Soogil Lee, Jungho Ko, Jongill Hong*
- M3-14** Multidomain modeling for identification of mechanical state  
*Olivier Hubert, Said Lazreg*
- M3-15** Investigation of the dependence of sensitivity of magnetostriction of cobalt ferrite to applied field on cation ratio and processing parameters  
*C. I. Nlebedim, N. Ranvah, P. I. Williams, Y. Melikhov, J. E. Snyder, A. J. Moses, D. C. Jiles*
- M3-16** Acoustic ferromagnetic system for robotics applications  
*Jose A. Somolinos, Daniel Cortazar, Carlos Moron*
- M3-17** Flux-splitting position transducer with Si-Fe laminations  
*Aly F. Flores Filho, Roberto Mueller, Roberto P. Homrich*
- M3-18** Study of strain sensor using FeSiB magnetostrictive thin film  
*Yasuaki Suwa, Shuichiro Hashi, Kazushi Ishiyama*
- M3-19** Soft magnets for passive attitude stabilization of small satellites  
*Fausto Fiorillo, Fabio Santoni, Enzo Ferrara, Maria Libera Battagliere, Oriano Bottauscio, Filippo Graziani*
- M3-20** Design of a LVDT with high rejection to external interfering magnetic field  
*Alessandro Danisi, Roberto Losito, Michele Martino, Alessandro Masi, Giovanni Spiezia*
- M3-21** Ferromagnetic resonance and damping in soft magnetic films: measurements and intercomparison  
*M. Kuepferling, M. Pasquale, G. Bertotti, E. Olivetti, M. Coisson, F. Celegato, Y. Endo, Y. Mitsuzuka, M. Yamaguchi, S. Serrano-Guisan, H.W. Schumacher, P. Kabos*
- M3-22** Magnetoimpedance in exchange biased nanostructures  
*R.B. da Silva, A.D.C. Viegas, M.A. Correa, L.F. Schelp, R.L. Sommer*
- M3-23** High frequency magnetoimpedance in nanostructured films for magnetic sensor applications  
*Marcio A. Corrêa, Felipe Bohn, Alexandre D. C. Viegas, Rubem L. Sommer*

- M3-24** Harmonic distortion of magnetizing current in combined wound toroidal cores with different diameters  
*Marian Soinski, Roman Rygal, Robert Pytlech, Przemyslaw Pinkosz, Kamil Szafran*
- M3-25** A practical method to measure electrical AC conductivity of MnZn ferrites using conventional toroids  
*Alexander Stadler, Manfred Albach, Andreas Lindner*

## Session N3 - Shielding, environment and energy saving applications

*Wednesday, September 9*

- N3-01**            Large scale removable magnetic shield consisting of separate magnetic shells and active magnetic compensation  
*I. Sasada, T. Horie, Y. Nakashima, T. Takeda, M. Shimada*
- N3-02**            Fe-8%Al magnetic steel sheet applied to magnetic shielding at high frequency up to 100 kHz  
*Yasuo Okazaki, Shunji Yanase, Masato Itadani, Yoshihira Ohkanda, Tamio Kuroshima*
- N3-03**            Magnetic shielding of levitation melting devices  
*Peter Sergeant, Dietrich Hectors, Luc Dupré, Koen Van Reusel*
- N3-04**            Measurement and modelling of the magnetic shielding for MRI suites  
*Harshad V. Patel, Michael J. Hall, Stuart A.C. Harmon, Ian King*
- N3-05**            The analytical and numerical evaluation versus experimental of electromagnetic shielding effectiveness of a rectangular enclosure with apertures  
*F. Tahar Belkacem, A. Boutar, M. Bensetti, F. Duval, M. Djennah, B. Mazari*
- N3-06**            Magnetic design for an electrodeless discharged lamp  
*T. Yanai, K. Takahashi, M. Nakano, H. Ogasawara, H. Kakehashi, H. Fukunaga*

