

# 10<sup>th</sup> European Conference on Magnetic Sensors and Actuators

**Date: Sunday, 06/Jul/2014**

**5:00pm**

**Registration/Welcome Party**

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Location: **Registration Area**

**8:00pm**

Chair: **Ioanna Giouroudi**, Vienna University of Technology; [ioanna.giouroudi@tuwien.ac.at](mailto:ioanna.giouroudi@tuwien.ac.at)



<b>Date: Monday, 07/Jul/2014</b>	
8:00am - 8:30am	<b>Registration</b> Location: <b>Registration Area</b>
8:30am - 9:30am	<b>Conference Opening</b> Location: <b>EI7</b> Chair: <b>Ioanna Giouroudi</b> , Vienna University of Technology; <a href="mailto:ioanna.giouroudi@tuwien.ac.at">ioanna.giouroudi@tuwien.ac.at</a>
9:30am - 11:00am	<b>Magnetometers</b> Location: <b>EI7</b> Chair: <b>Christophe Dolabdjian</b> , GREYC-Université de Caen Basse-Normandie; <a href="mailto:christophe.dolabdjian@unicaen.fr">christophe.dolabdjian@unicaen.fr</a>
MO10:	<b>Global Scale Planetary Magnetometry</b> <i>Invited</i> <u>Marina Diaz Michelena</u> INTA, Spain
MO11:	<b>Optimum structure for focused double full bridge 2D GMR sensor in monolithic integration for high sensitivity (compass) applications.</b> <u>Olaf Ueberschär</u> <sup>1</sup> , Maria Almeida <sup>1,2</sup> , Patrick Matthes <sup>3</sup> , Ramona Ecke <sup>1</sup> , Stefan E. Schulz <sup>1,2</sup> , Thomas Geßner <sup>1,2</sup> 1: Fraunhofer Institute for Electronic Nano Systems ENAS, Chemnitz, Germany; 2: TU Chemnitz, Zentrum für Mikrotechnologien, Chemnitz, Germany; 3: TU Chemnitz, Institut für Physik, Chemnitz, Germany
MO12:	<b>A Front-End ASIC for a 3D Magnetometer for Space Applications Based on Anisotropic Magnetoresistors</b> <u>Samuel Sordo-Ibañez</u> <sup>1</sup> , Blanca Piñero-García <sup>1</sup> , Manuel Muñoz-Díaz <sup>1</sup> , Antonio Ragel-Morales <sup>2</sup> , Joaquin Ceballos-Caceres <sup>2</sup> , Luis Carranza-Gonzalez <sup>1</sup> , Servando Espejo-Meana <sup>1</sup> , Alberto Arias-Drake <sup>1</sup> , Juan Ramos-Martos <sup>2</sup> , Jose Miguel Mora-Gutierrez <sup>2</sup> , Miguel Angel Lagos-Florido <sup>2</sup> 1: Universidad de Sevilla, Dpto. Electronica y Electromagnetismo, Spain; 2: Instituto de Microelectronica de Sevilla, Centro Nacional de Microelectronica - CSIC, Spain
MO13:	<b>Low frequency excess noise source investigation of off-diagonal GMI-based magnetometers</b> <u>Basile Dufay</u> <sup>1</sup> , Elodie Portalier <sup>1</sup> , Sebastien Saez <sup>1</sup> , Christophe Dolabdjian <sup>1</sup> , Arthur Yelon <sup>2</sup> , David Menard <sup>2</sup> 1: UCBN - GREYC, Caen, France; 2: Dept genie physique, Ecole Polytechnique de Montréal, Montreal, QC, Canada
MO14:	<b>Ultra high sensitive three dimensional superconducting quantum interference device for nanomagnetism applications</b> <u>Carmine Granata</u> <sup>1</sup> , Antonio Vettoliere <sup>1</sup> , Berardo Ruggiero <sup>1</sup> , Roberto Russo <sup>1,3</sup> , Matteo Fretto <sup>2</sup> , Natascia De Leo <sup>2</sup> , Emanuele Enrico <sup>2</sup> , Vincenzo Lacquaniti <sup>2</sup> 1: National Research Council, Istituto di Cibernetica; 2: Istituto Nazionale di Ricerca Metrologica; 3: National Research Council, Istituto di Microelettronica e Microsistemi
11:00am - 11:30am	<b>Coffee Break</b>
11:30am - 12:45pm	<b>Physical Sensors</b> Location: <b>EI7</b> Chair: <b>Marina Diaz Michelena</b> , INTA; <a href="mailto:diazma@inta.es">diazma@inta.es</a>
MO21:	<b>Temperature and field robustness of magnetoresistive automotive sensors</b> <u>Aurelie Solignac</u> , Jurgen Kohlhepp, Henk Swagten, Bert Koopmans Eindhoven University of Technology, The Netherlands

MO22:	<p><b>Development of micronic GMR-magneto-resistive sensors for non-destructive sensing applications</b>  Henri-Yves Jaffres<sup>1</sup>, Yves Lemaitre<sup>1</sup>, Sophie Collin<sup>1</sup>, Cyrile Deranlot<sup>1</sup>, Frederic Nguyen Van Dau<sup>1</sup>, Natalia Sergeeva-Chollet<sup>2</sup>, Jean-Marc Decitre<sup>2</sup>  1: Unite Mixte de Physique CNRS-Thales, 91767 Palaiseau-Cedex France; 2: CEA-LIST Saclay DIGITEO Labs Bât.565, 91191 Gif-sur-Yvette Cedex</p>
MO23:	<p><b>High-Sensitive Magneto-resistive Sensor with Integrated Magnetic Flux Concentrators</b>  Xiaolu Yin, <u>Sy-Hwang Liou</u>  University of Nebraska, United States of America</p>
MO24:	<p><b>Spatial Resolution Enhancement for Integrated Magnetic Probe by Two-Step Removal of Si-Substrate Beneath the Coil</b>  <u>Nguyen Ngoc Mai-Khanh</u><sup>1</sup>, Tetsuya Iizuka<sup>2</sup>, Shigeru Nakajima<sup>3</sup>, Kunihiro Asada<sup>1,2</sup>  1: VLSI Design &amp; Education Center, The Univ. of Tokyo, Japan; 2: Dept. of Electrical Engineering, The Univ. of Tokyo, Japan; 3: Device Analysis Corporation, Chigasaki, Japan</p>
MO25:	<p><b>NDT of pipes under ferromagnetic sheath</b>  <u>Michal Janosek</u><sup>1</sup>, William S. Billingsley<sup>2</sup>, Pavel Ripka<sup>1</sup>  1: Czech Technical University in Prague, Czech Republic; 2: Billingsley Aerospace &amp; Defense</p>
12:45pm - 2:00pm	<b>Lunch/Buffer</b>
2:00pm - 3:30pm	<p><b>Biomedical Applications</b>  Location: <b>E17</b>  Chair: <b>Laura Lewis</b>, Northeastern University; <a href="mailto:lhlewis@neu.edu">lhlewis@neu.edu</a></p>
MO30:	<p><b>Magnetic Materials in Medicine: Applications in Diagnosis, Management, and Treatment of Disease. <i>Invited</i></b>  <u>Tim St Pierre</u>  The University of Western Australia, Australia</p>
MO31:	<p><b>Magnetic fluid monitoring in porous medium using Spin Valves for Point-of-care solutions</b>  <u>Alexandre Chicharo</u><sup>1</sup>, Filipe Cardoso<sup>1</sup>, Susana Cardoso<sup>1</sup>, P.P. Freitas<sup>1,2</sup>  1: INESC-MN, Portugal; 2: International Iberian Nanotechnology Laboratory</p>
MO32:	<p><b>Biomagnetic field detection of cellular organizations with propagating electric activity using amorphous wire-based magneto-sensor elements linearly connected in magnetic circuit</b>  <u>Shinsuke Nakayama</u><sup>1</sup>, Satoshi Atsuta<sup>1,3</sup>, Tsuyoshi Uchiyama<sup>2</sup>  1: Nagoya University Graduate School of Medicine; 2: Nagoya University Graduate School of Engineering; 3: Fujidenolo Corp.</p>
MO33:	<p><b>Highly sensitive detection of magnetic nanoparticles in 3D structures for rapid bioassays</b>  <u>Petr Nikitin</u><sup>1</sup>, Alexey Orlov<sup>1</sup>, Maxim Nikitin<sup>1,2</sup>, Petr Vetoshko<sup>1</sup>, Vera Bragina<sup>1</sup>, Sergey Znoyko<sup>1</sup>, Tatiana Ksenevich<sup>1</sup>, Boris Gorshkov<sup>1</sup>  1: General Physics Institute, Russian Academy of Sciences, Russian Federation; 2: Institute of Bioorganic Chemistry, Russian Academy of Sciences</p>
MO34:	<p><b>Search of magnetite nanoparticles in the rats' brain</b>  <u>Jose Manuel Barandiaran</u><sup>1</sup>, Luis Martinez-Millan<sup>2</sup>, Inmaculada Gerrikagoitia<sup>2</sup>, Sara Orue<sup>1</sup>, Iñaki orue<sup>3</sup>, Luis Lezama<sup>1</sup>  1: BCMaterials and UPV/EHU, Spain; 2: Department of NeuroScience UPV/EHU, Spain; 3: SGiker, UPV/EHU, Spain</p>

3:30pm - 4:00pm	<b>Coffee Break</b>
4:00pm - 5:30pm	<p><b>Poster Session</b> Location: <b>Poster Session Hall</b></p> <hr/> <p><b>Using Biocompatible Standardized Magnetite Nanoparticles (ICNB) In MRI Investigation Of Malignant Tumour</b> MP01: <u>Andrey Belousov</u>, Kateryna Belousova Laboratory of Applied Nanotechnology Kharkov Medical Academy of Postgraduate Education, Ukraine</p> <hr/> <p><b>MEMS Magnetic Field Detection</b> MP02: <u>Michael Stifter</u><sup>1,2</sup>, Wilfried Hortschitz<sup>1</sup>, Harald Steiner<sup>1</sup>, Thilo Sauter<sup>1</sup>, Franz Keplinger<sup>2</sup> 1: Danube University Krems, Austria; 2: Vienna University of Technology</p> <hr/> <p><b>Low Cost Giant Magnetoimpedance Sensor Fabricated on Flexible Substrate</b> MP03: <u>Bodong Li</u>, Jürgen Kosel KAUST, Saudi Arabia</p> <hr/> <p><b>Drying stresses in granular materials using magnetoelastic sensors</b> MP04: Claudia Daiane Tormes<sup>1</sup>, Marcelle Uliam Triaca<sup>1</sup>, Robinson C D Cruz<sup>2</sup>, <u>Frank Patrick Missell</u><sup>1</sup> 1: CCET, Universidade de Caxias do Sul, Brazil; 2: Instituto de Materiais Cerâmicos, Universidade de Caxias do Sul, Brazil</p> <hr/> <p><b>Linear Neel Effect Current Sensor</b> MP05: <u>Eric Vourc'h</u><sup>1</sup>, Pierre-Yves Joubert<sup>2</sup>, Lionel Cima<sup>3</sup> 1: SATIE, France; 2: IEF, France; 3: Neelogy, France</p> <hr/> <p><b>Optimized Circuitry for AMR Magnetometer</b> MP06: <u>Michal Vopalensky</u>, Ivan Krejci College of Polytechnics Jihlava, Czech Republic</p> <hr/> <p><b>Magnonic Crystal for Magnetic Field Sensing</b> MP07: Selcuk Atalay, <u>Ali Onur Kaya</u>, Veli Serkan Kolat, Tekin Izgi, Olgun Adem Kaya, Huseyin Gencer Inonu University, Physics Department, Malatya, Turkey</p> <hr/> <p><b>Modeling of Magnetization Distribution near Shaped Boundary of Garnet Film Core in Fluxgate Magnetometer</b> MP08: <u>Vladimir Skidanov</u><sup>1</sup>, Petr Vetoshko<sup>1</sup>, Fedor Vetoshko<sup>1</sup>, Ludmila Uspenskaya<sup>2</sup>, Alexander Stempkovskiy<sup>1</sup> 1: Institute for Design Problems in Microelectronics RAS, Russian Federation; 2: Institute of Solid State Physics RAS</p> <hr/> <p><b>Characterisation of Magnetic Sensors at the Operational Temperatures of Industrial Applications</b> MP09: <u>Stuart Harmon</u>, Michael Hall, Steven Turner, Nick Hillier National Physical Laboratory, United Kingdom</p> <hr/> <p><b>Calibration of a Novel Three-Axis Fluxgate Gradiometer for Space Applications</b> MP10: Steven Turner, <u>Michael Hall</u>, Stuart Harmon, Nick Hillier National Physical Laboratory, United Kingdom</p>

MP11:	<p><b>A Study on High Precision Magnetic Encoder Based on the Arctangent Cross-intervals Tabulation Method</b></p> <p><u>Lei Wang</u>, Shuanghui Hao, Minghui Hao, Baoyu Song Harbin Institute of Technology, China, People's Republic of</p>
MP12:	<p><b>A High Frequency Current Source for GMI Sensors</b></p> <p><u>Manel Zidi</u>, Aktham Asfour, Jean-Paul Yonnet Laboratoire De Génie Electrique de Grenoble, France</p>
MP13:	<p><b>RMS-to-DC Converter for GMI Sensors</b></p> <p><u>Manel Zidi</u>, Aktham Asfour, Jean-Paul Yonnet Laboratoire De Génie Electrique de Grenoble, France</p>
MP14:	<p><b>Double Pole Wheel for Magnetic Speed Sensing</b></p> <p><u>Vidya Sagar Kantamneni</u><sup>1</sup>, Nitin Goyal<sup>1</sup>, Tobias Werth<sup>2</sup>, Michael Ortner<sup>1</sup> 1: Carinthian Tech Research, Austria; 2: Infineon Technologies, Austria</p>
MP15:	<p><b>Microsystem for micro- and small currents stabilization on the base of Field Effect Hall Sensor</b></p> <p><u>Victor Naumovich Mordkovich</u><sup>1</sup>, Mikhail Lvovich Baranochnikov<sup>1</sup>, Alexey Vladimirovich Leonov<sup>1</sup>, Dmitriy Mikhailovich Pazhin<sup>1</sup>, Mikhail Petrovich Karpushin<sup>2</sup> 1: Institute of microelectronics technology and high purity materials RAS, Russian Federation; 2: Ikar impulse ltd, Russia</p>
MP16:	<p><b>Development of the highly precise magnetic current sensor module of 300A by AMR*1)</b></p> <p><u>Zhenhong Zhang</u> Kanazawa Murata Manufacturing Co., Ltd., Japan, Japan</p>
MP17:	<p><b>Single Turn Absolute Magnetic Sensors Application in 3D Reconstruction of Objects</b></p> <p><u>Ivan Krejčí</u>, Michal Vopálenký College of Polytechnics Jihlava, Czech Republic</p>
MP18:	<p><b>Piezoelectric Resonance Sensors of DC Magnetic Field</b></p> <p><u>Yuri Fetisov</u>, Mikhail Fedotov, Vladimir Serov Moscow State Technical University of Radio Engineering, Electronics and Automation, Russian Federation</p>
MP19:	<p><b>Magnetic Field Sensors Using Nonlinear Magnetoelectric Effects</b></p> <p><u>Yuri Fetisov</u>, Nikolai Ekonomov, Leonid Fetisov, Feodor Fedulov Moscow State Technical University of Radio Engineering, Electronics and Automation, Russian Federation</p>
MP20:	<p><b>Design of the magnetoresistive magnetometer for ESA's SOSMAG project</b></p> <p><u>Stefan Leitner</u><sup>1</sup>, Aris Valavanoglou<sup>1</sup>, Christian Hagen<sup>1</sup>, Patrick Brown<sup>2</sup>, Werner Magnes<sup>1</sup>, Barry J. Whiteside<sup>2</sup>, Christopher M. Carr<sup>2</sup>, Magda Delva<sup>1</sup>, Wolfgang Baumjohann<sup>1</sup> 1: Austrian Academy of Sciences, Austria; 2: Imperial College London, UK</p>
MP21:	<p><b>Relationship between Sensitivity of a Fluxgate Sensor and the Magnetic Domain Structure of its Cores</b></p> <p>Hiroshi Miyata<sup>1</sup>, Ryoma Yamamoto<sup>2</sup>, Yuji Morimoto<sup>2</sup>, <u>Masaaki Takezawa</u><sup>2</sup> 1: MTI Co., Ltd, Japan; 2: Kyushu Institute of Technology, Japan</p>

MP22:	<p><b>Modeling of magnetostrictive torque sensor as proof of operating principle and optimization tool</b>  <u>Vasileios Tsiantos</u><sup>1</sup>, Aphrodite Ktena<sup>2</sup>, Christos Manasis<sup>2</sup>, Evangelos Hristoforou<sup>3</sup>  1: TEI AMTh, Greece; 2: TEI Stereas Elladas, Greece; 3: National Technical University of Athens, Greece</p>
MP23:	<p><b>Research on relative positioning sensor system for non-core Linear Synchronous Motor</b>  <u>yan sun</u><sup>1</sup>, changyoung lee<sup>2</sup>, jinho lee<sup>2</sup>, youngjae han<sup>2</sup>  1: University of Science &amp; Technology, Korea, Republic of (South Korea); 2: Korea Railroad Research Institute, Korea, Republic of (South Korea)</p>
MP24:	<p><b>Influence on magnetic properties of glass-coated magnetic microwires by fixation for biomedical applications</b>  Radovan Hudak<sup>1</sup>, Rastislav Varga<sup>2</sup>, Jozef Hudak<sup>3</sup>, Dusan Praslicka<sup>3</sup>, <u>Irenej Polacek</u><sup>1</sup>, Peter Klein<sup>2</sup>, El Khamouni<sup>4</sup>, Manuel Vazquez<sup>4</sup>  1: Department of Biomedical Engineering and Measurement, Faculty of Mechanical Engineering, Technical University of Kosice, Letna 9, 042 00 Kosice, Slovakia; 2: Department of Condensed Matters Physics, Institute of Physics, Faculty of Science, P. J. Safarik University, Park Angelinum 9, 041 54 Kosice, Slovakia; 3: Department of Aviation Technical Studies, Faculty of Aeronautics, Technical University of Kosice, Watsonova 47, 040 01 Kosice, Slovakia; 4: The Instituto de Ciencia de Materiales de Madrid, institute of the Consejo Superior de Investigaciones Cientificas, Madrid, Spain</p>
MP25:	<p><b>Portable MFL probe using a GMR sensor with high sensitivity to crack's orientation in steel</b>  Juan Aguila-Muñoz<sup>1</sup>, <u>José-Hiram Espina-Hernández</u><sup>1</sup>, José-Alberto Pérez-Benitez<sup>1</sup>, Francisco Caleyó-Cereijo<sup>2</sup>, José-Manuel Hallen-López<sup>2</sup>  1: Laboratorio de Evaluación No Destructiva Electromagnética (LENDE), ESIME-SEPI, UPALM Edif. Z-4, Instituto Politécnico Nacional, Zacatenco, Mexico D.F.; 2: 2 Departamento de Ingeniería Metalúrgica. IPN-ESIQIE, UPALM Edif. 7. Zacatenco, México D.F., México</p>
MP26:	<p><b>Analysis on the Roughness Measurements of Maglev Guideway using Gap Sensors and an Acceleration Sensor</b>  <u>Jeong-Min Jo</u><sup>1</sup>, Jin-Ho Lee<sup>2</sup>, Young-Jae Han<sup>3</sup>, Chang-Young Lee<sup>4</sup>  1: Korea Railroad Research Institute, Korea, Republic of (South Korea); 2: Korea Railroad Research Institute, Korea, Republic of (South Korea); 3: Korea Railroad Research Institute, Korea, Republic of (South Korea); 4: Korea Railroad Research Institute, Korea, Republic of (South Korea)</p>
MP27:	<p><b>Characteristics Comparison of Fluxgate Sensors Based on Magnetic Microwires for Weak Magnetic Fields Measurement</b>  Jozef Hudák, Václav Moucha, <u>Pavol Lipovský</u>, Ján Bajús, Katarína Draganová, Andrej Čverha  Faculty of Aeronautics, Technical University of Košice, Slovak Republic</p>
MP28:	<p><b>Adaptive Attitude-Independent Magnetometer Calibration</b>  Tomáš Kliment, <u>Katarína Draganová</u>, Ivan Mikita, Norbert Flachbart  Technical University of Košice, Faculty of Aeronautics, Slovak Republic</p>
MP29:	<p><b>Superconducting magnetometers for high sensitive applications</b>  <u>Antonio Vettoliere</u><sup>1</sup>, Carmine Granata<sup>1</sup>, Roberto Monaco<sup>1,2</sup>  1: Istituto di Cibernetica "E. Caianiello" del Consiglio Nazionale delle Ricerche, Italy; 2: Facoltà di scienze, Università di Salerno, Fisciano, Italy</p>
MP30:	<p><b>Towards a Novel Digital Electronic Conditioning for the GMI Sensors: The Software Defined Radio (SDR)</b>  <u>Aktham Asfour</u>, Jean-Paul Yonnet, Manel Zidi  Laboratoire de Génie Electrique de Grenoble (G2E-Lab), UMR 5269, CNRS-Grenoble-INP-Université Joseph Fourier</p>

MP31:	<p><b>Iron Loss Minimization of Interior Permanent Magnet Motor considering Shape Configuration</b>  Sunghoon Lim<sup>1</sup>, Youngsuk Jung<sup>1</sup>, <u>Seungjae Min</u><sup>1</sup>, Jung-Pyo Hong<sup>1</sup>, Shinji Nishiwaki<sup>2</sup>  1: Hanyang University, Korea, Republic of (South Korea); 2: Kyoto University, Japan</p>
MP32:	<p><b>Stress-constrained Flux Barrier Design Optimization of Interior Permanent Magnet Motor</b>  Seunggyun Park, Seahn Oh, <u>Seungjae Min</u>, Jung-Pyo Hong  Hanyang University, Korea, Republic of (South Korea)</p>
MP33:	<p><b>Giant Magneto-Impedance (GMI) based magnetic sensing device for Application in Non-Destructive Evaluation</b>  <u>Partha Sarkar</u><sup>1</sup>, Pavel Ripka<sup>1</sup>, Jan Vcelak<sup>1</sup>, Rajat K. Roy<sup>2</sup>, Ashis K. Panda<sup>2</sup>, Amitava Mitra<sup>2</sup>  1: University Centre for Energy Efficient Buildings (UCEEB), Czech Technical University, Prague, Czech Republic; 2: CSIR-National Metallurgical Laboratory, Council of Scientific &amp; Industrial Research, Jamshedpur, India</p>
MP34:	<p><b>Experimental study of GMI sensor noise behavior in order to optimize its performances</b>  <u>Elodie Portalier</u>, Basile Dufay, Sebastien Saez, Christophe Dolabdjian  GREYC Electronique, France</p>
MP35:	<p><b>Functional properties of monolayer and bi-layer graphene Hall-effect sensors</b>  <u>Oleg Petruk</u><sup>1</sup>, Roman Szewczyk<sup>2</sup>, Tymoteusz Ciuk<sup>3</sup>, Wlodek Strupinski<sup>3</sup>, Jacek Salach<sup>2</sup>, Adam Bienkowski<sup>2</sup>, Michał Nowicki<sup>2</sup>, Iwona Pasternak<sup>3</sup>, Wojciech Winiarski<sup>1</sup>, Krzysztof Trzcinka<sup>1</sup>, Maciej Kachniarz<sup>1</sup>  1: Industrial Research Institute for Automation and Measurements PIAP, Poland; 2: Warsaw University of Technology, Poland; 3: Institute of Electronic Materials Technology, Poland</p>
MP36:	<p><b>PM Magnetization Characteristics Analysis Considered Rotor Bar Eddy Current of a Post-Assembly Line Start PM Motor using Coupled Preisach Modeling and FEM</b>  <u>Jung Woo Kim</u>, Jung Ho Lee, Young Hyun Kim  Hanbat National University, Korea, Republic of (South Korea), Deongmyeong-dong, Yuseong-gu, 305-719</p>
MP37:	<p><b>Demagnetization Current Evaluations Using Finite Element Method and Magnetic Equivalent Circuit Modeling in a Pole Changing Memory Motor</b>  Jung Ho Lee, <u>Su Yong Kim</u>, Young Hyun Kim  Hanbat National University, Korea, Republic of (South Korea)</p>
MP38:	<p><b>Optimum Design of ALA-SynRM Considering Centrifugal Force and Flux Effect for Torque Density and Power Factor Improvement</b>  <u>Young Hyun Kim</u>, Jin Kyoung Lee, Jung Ho Lee  Hanbat national university, Korea, Republic of (South Korea)</p>
MP39:	<p><b>Optimum Design Standard Evaluation and Experiment of PMASynRM for Power Improvement</b>  Jung Ho Lee, <u>Jin Kyoung Lee</u>, Young Hyun Kim  Hanbat National University, Korea, Republic of (South Korea), Deongmyeong-dong, Yuseong-gu, 305-719, Daejeon</p>
MP40:	<p><b>Loss and Efficiency Comparisons of Various SynRMs according to Geometric Structure by Preisach Models and Experimental Verification</b>  Jung Ho Lee, <u>Jun Ho Lee</u>, Young Hyun Kim  Hanbat National University, Korea, Republic of (South Korea)</p>

MP41:	<p><b>Prediction of conductor ratio according to each of output power of Tubular Linear Induction Motor using FEM and RSM</b>  Jung Ho Lee, <u>Jun Seo</u>, Young Hyun Kim  Hanbat National University, Korea, Republic of (South Korea)</p>
MP42:	<p><b>Demagnetizing Characteristic Analysis of SPLSPM Motor Using the Preisach Model</b>  Jeong-Jong Lee, <u>Se-Hyun Rhyu</u>, In-Soung Jung  Korea Electronics Technology Institute, Korea, Republic of (South Korea)</p>
MP43:	<p><b>Design and Development of Axial-gap type Magnetic Position Sensor for Fuel Pump Module</b>  <u>Se-Hyun Rhyu</u><sup>1</sup>, Hyung-Min Kim<sup>2</sup>  1: Korea Electronics Technology Institute, Korea, Republic of (South Korea); 2: R&amp;D Team, COAVIS, Korea, Republic of (South Korea)</p>
MP44:	<p><b>Investigation on the End-Coil Structure with Square Conductor for the Automobile ISG</b>  <u>Se-Hyun Rhyu</u>, Young-Kyoun Kim  Korea Electronics Technology Institute, Korea, Republic of (South Korea)</p>
MP45:	<p><b>Characteristics of Magnetic Sensors Based on Ceramic Manganite with Contacts of Various Metals</b>  <u>Vladimir Korniliyevich Karpasyuk</u>, Andrey Mikhailovich Smirnov, Alexey Gennadievich Badelin  Astrakhan State University, Russian Federation</p>
MP46:	<p><b>Magnetostriction offset of fluxgate sensors</b>  <u>Pavel Ripka</u>, Mattia Butta, Michal Pribil  Czech Technical University, Czech Republic</p>
MP47:	<p><b>NiFe-based magneto-impedance sensors micromolding</b>  Meritxell Cortés, Tao Peng, Marion Woytasik, <u>Johan Moulin</u>  Institut d'Électronique Fondamentale, Univ. Paris Sud / CNRS, Orsay cedex, France</p>
MP48:	<p><b>Effect of stress induced anisotropy on the noise of ring-core fluxgate</b>  <u>Mattia Butta</u><sup>1</sup>, Pavel Ripka<sup>1</sup>, Ludek Kraus<sup>2</sup>  1: Czech Technical University in Prague - Faculty of Electrical Engineering, Czech Republic; 2: Academy of Sciences of the Czech Republic, Institute of Physics</p>
MP49:	<p><b>Modelling of Domain Wall Detection in Py Nanowires via Micro-Hall Magnetometry</b>  <u>Vahid Nabaei</u><sup>1,2</sup>, Alessandra Manzin<sup>2</sup>  1: Department of Electrical Engineering, Hidaj Branch, Islamic Azad University, Hidaj, Iran; 2: Istituto Nazionale di Ricerca Metrologica (INRIM), Torino, Italy</p>
MP50:	<p><b>Radiation-hardened and low-noise ASIC amplifier designed for the highly sensitive ESA/JUICE induction magnetometer</b>  <u>Amine Rhouni</u>, Gérard Sou, Malik Mansour, Christophe Coillot  LPP - Laboratory of Plasmas Physics, CNRS - Ecole Polytechnique</p>
MP51:	<p><b>A study of the influence of the magnetostriction constant on magnetic anisotropy of MI sensor using magnetostrictive film</b>  <u>Jaewon Shin</u>, Yasuyuki Miwa, Sung Hoon Kim, Shuichiro Hashi, Kazushi Ishiyama  Tohoku University, Japan</p>



MP52:	<p><b>Basic study of fabricating high sensitive strain sensor using magnetostrictive thin film on Si wafer</b></p> <p><u>Yasuyuki Miwa</u>, Jaewon Shin, Yoshiaki Hayashi, Shuichiro Hashi, Kazushi Ishiyama Tohoku University, Japan</p>
MP53:	<p><b>Pin sensor for induction measurements in the core interior</b></p> <p><u>Georgi Shilyashki</u><sup>1</sup>, Helmut Pfützner<sup>1</sup>, Peter Hamberger<sup>2</sup>, Martin Aigner<sup>2</sup>, Erich Gerstbauer<sup>1</sup>, Martin Palkovits<sup>1</sup>, Gerald Trenner<sup>1</sup> 1: TU Wien, EMCE, Austria; 2: Transformers Linz, Siemens AG Österreich</p>
MP54:	<p><b>Sub-pT Sensitivity of Rotational Fluxgate Magnetometer Based on Tm<sub>3</sub>Fe<sub>5-x</sub>Sc<sub>x</sub>O<sub>12</sub> Garnet Film Core</b></p> <p><u>Petr Vetoshko</u><sup>1</sup>, Vladimir Shavrov<sup>1</sup>, Vladimir Skidanov<sup>2</sup>, Igor I. Syvorotka<sup>3</sup>, Igor M. Syvorotka<sup>3</sup> 1: Institute of Radioengineering and Electronics, Academy of Sciences of Russia, Russian Federation; 2: Institute for Design Problems in Microelectronics, Moscow, Russia; 3: Department of Crystal Physics, SRC "Carat", Lviv, Ukraine</p>
MP55:	<p><b>A novel sensor for regional induction detection in soft magnetic cores</b></p> <p><u>Georgi Shilyashki</u><sup>1</sup>, Helmut Pfützner<sup>1</sup>, Peter Hamberger<sup>2</sup>, Martin Aigner<sup>2</sup>, Erich Gerstbauer<sup>1</sup>, Martin Palkovits<sup>1</sup>, Gerald Trenner<sup>1</sup> 1: TU Wien, EMCE; 2: Transformers Linz, Siemens AG Österreich</p>
MP56:	<p><b>Phase Demodulation of Magnetic GMR signal for Virtual Sensing applications by using Hilbert Transform</b></p> <p><u>Muhammad Adnan</u><sup>1</sup>, Hammerschmidth Dirk<sup>2</sup> 1: Carinthian Tech. Research AG, Austria; 2: Infineon Technologies AG, Villach Austria</p>
MP57:	<p><b>Inductive Displacement Sensor Embedded in LTCC Packaging</b></p> <p><u>Nelu Blaz</u><sup>1</sup>, Andrea Maric<sup>1</sup>, Goran Radosavljevic<sup>2</sup>, Ljiljana Zivanov<sup>1</sup> 1: Faculty of Technical Sciences, University of Novi Sad, Serbia; 2: Institute for Sensor and Actuator Systems, Vienna University of Technology</p>
MP58:	<p><b>The influence of substrate stiffness in magnetoelastic bilayer gas flow sensor</b></p> <p>George S Katranas, <u>Turgut Meydan</u>, Paul I Williams Cardiff University, UK, United Kingdom</p>
MP59:	<p><b>Use of ANFIS for Microwave Sensor Determining the Dielectric Properties of Materials</b></p> <p>Hakim Sadou<sup>1</sup>, <u>Tarik Hacib</u><sup>1</sup>, Hulusi Acikgoz<sup>2</sup>, Yann Le Bihan<sup>3</sup> 1: Jijel University, Algeria; 2: KTO Karatay University; 3: Supelec, CNRS, Paris 6 University</p>
MP60:	<p><b>Metglas 2714 annealing for application in fluxgate sensors</b></p> <p><u>Vojtěch Petrucha</u><sup>1</sup>, Michal Janošek<sup>1</sup>, Ondřej Životský<sup>2</sup> 1: Czech Technical University in Prague, Czech Republic; 2: VŠB-Technical University of Ostrava, Czech Republic</p>
MP61:	<p><b>Magnetic core material for fluxgate sensor</b></p> <p>MahaAldoumani<sup>1</sup>, <u>TurgutMeydan</u><sup>1</sup>, Yevgen Melikhov<sup>1</sup>, Chris Shelton<sup>2</sup> 1: Cardiff University, UK, United Kingdom; 2: Autonnic Research Limited</p>
MP62:	<p><b>Modeling a Single loop inductive RF sensor using the distributed point source method</b></p> <p><u>Mengze Wang</u><sup>1</sup>, Pierre-Yves Joubert<sup>2</sup>, Stephane Serfaty<sup>3</sup>, Thierry Bore<sup>4</sup>, Dominique Placko<sup>5</sup> 1: Universite Paris Sud, IEF, CNRS, France; 2: Universite Paris Sud, IEF, CNRS, France; 3: Universite Cergy Pontoise, SATIE, CNRS, France; 4: SATIE, CNRS, France; 5: SATIE, CNRS, ENS Cachan, France</p>

MP63:	<p><b>The effect of sensor size on axial gradiometer performance</b>  <u>Michal Janosek</u>, Jan Vyhnanek, Antonin Platil  Czech Technical University in Prague, Czech Republic</p>
MP64:	<p><b>Impact of physico-chemical treatments on the low frequency noise of GMI-based magnetometers</b>  Nicolas Teyssedou<sup>1</sup>, Élodie Portalier<sup>2</sup>, Basile Dufay<sup>2</sup>, Sébastien Saez<sup>2</sup>, Christophe Dolabdjian<sup>2</sup>, Arthur Yelon<sup>1</sup>, <u>David Ménard</u><sup>1</sup>  1: Polytechnique Montréal, Canada; 2: Université de Caen Basse-Normandie, France</p>
MP65:	<p><b>Passive Wireless Sensor for Force Measurements</b>  <u>Milica G. Kusic</u><sup>1</sup>, Nelu V. Blaz<sup>1</sup>, Kalman Babkovic<sup>1</sup>, Andrea Maric<sup>1</sup>, Goran J. Radosavljevic<sup>2</sup>, Ljiljana D. Zivanov<sup>1</sup>, Mirjana S. Damjanovic<sup>1</sup>  1: Department of Power, Electronic and Telecommunication Engineering, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia; 2: Institute for Sensor and Actuator Systems, Vienna University of Technology, Vienna, Austria</p>
MP66:	<p><b>Optimizing the geometry of symmetrical Hall sensors</b>  <u>Vincent Mosser</u>, Youcef Haddab  ITRON, France</p>
MP67:	<p><b>Hall sensors in micromagnetometry applications</b>  <u>Vincent Mosser</u><sup>1</sup>, Marcin Konczykowski<sup>2</sup>  1: ITRON, France; 2: LSI, Ecole Polytechnique, CNRS URA-1380</p>
MP68:	<p><b>Magnetic-Stripe RFID Sensor for Object Identification and Sensing</b>  <u>Yeong-Lin Lai</u>, Li-Chih Chang  National Changhua University of Education, Taiwan, Republic of China</p>
MP69:	<p><b>Concept of hybrid inductive/magneto-resistive magnetometer</b>  <u>Malik Mansour</u><sup>1</sup>, Christophe Coillot<sup>3</sup>, Frederic Nguyen Van Dau<sup>2</sup>, Alain Roux<sup>1</sup>  1: LPP/CNRS, France; 2: UMR CNRS/Thales, France; 3: Laboratoire Charles Coulomb, France</p>
MP70:	<p><b>An RFID Electromagnetic Sensor Using Near Field Technology</b>  <u>Yeong-Lin Lai</u>, Li-Chih Chang  National Changhua University of Education, Taiwan, Republic of China</p>
MP71:	<p><b>Ultrasensitive fluxgate magnetometers based on rotational magnetic excitation</b>  <u>Evangelos Hristoforou</u><sup>1</sup>, Aphrodite Ktena<sup>2</sup>, Peter Svec<sup>3</sup>  1: National Technical University of Athens, Greece; 2: Department of Electrical Engineering, TEI of Sterea Ellada, Chalkida, Greece; 3: Institute of Physics, Slovak Academy of Sciences, Slovakia</p>
6:30pm - 7:45pm	<p><b>"Guest of Honour" Reception</b>  Location: <b>Festsaal</b>  Karlsplatz 13</p>
7:45pm - 8:30pm	<p><b>Keynote Speech: <u>Shan X. Wang</u></b>, Stanford University, USA  Location: <b>Festsaal</b>  Karlsplatz 13</p>
8:30pm - 9:30pm	<p><b>Concert TU Orchestra</b>  Location: <b>Festsaal</b>  Karlsplatz 13</p>

<b>Date: Tuesday, 08/Jul/2014</b>	
8:00am - 9:00am	<b>Registration</b> Location: <b>Registration Area</b>
9:00am - 10:30am	<b>Novel Magnetic Materials</b> Location: <b>E17</b> Chair: <b>Hari Srikanth</b> , University of South Florida; <a href="mailto:sharihar@usf.edu">sharihar@usf.edu</a>
TO10:	<b>Soft Magnetic Thin Film Applications at Radio Frequencies</b> <i>Invited</i> <u>Masahiro Yamaguchi</u> Tohoku University, Japan
TO11:	<b>Tunable Response in FeRh Films</b> <u>Laura Lewis</u> <sup>1</sup> , <u>Melissa Loving</u> <sup>1</sup> , <u>Chantal Le Graet</u> <sup>2</sup> , <u>Christian Kinane</u> <sup>3</sup> , <u>Sean Langridge</u> <sup>3</sup> , <u>Christopher Marrows</u> <sup>2</sup> 1: Northeastern University, Boston, MA, United States of America; 2: University of Leeds, Leeds, United Kingdom; 3: ISIS, STFC Rutherford Appleton Laboratory, Chilton, Didcot, Oxon, United Kingdom
TO12:	<b>Soft magnetic properties of Fe-rich FeSiBPCu amorphous powder</b> <u>Yan Zhang</u> , <u>Parmanand Sharma</u> , <u>Akihiro Makino</u> Institute for Materials Research, Tohoku University, Sendai, Japan
TO13:	<b>Fe85-95B1-10Si1-10 multilayer thin films for HF applications</b> <u>George Loizos</u> <sup>1</sup> , <u>George Giannopoulos</u> <sup>1</sup> , <u>Tuhin Maity</u> <sup>2</sup> , <u>Saibal Roy</u> <sup>2</sup> , <u>Nicoleta Lupu</u> <sup>3</sup> , <u>Dimitris Niarchos</u> <sup>1</sup> 1: NCSR "DEMOKRITOS", Greece; 2: Tyndall National Institute, University College of Cork; 3: National Institute of R&D for Technical Physics, Romania
TO14:	<b>Influence of Thickness on the Metastable Ordered Phase Formation in CoPt and Co<sub>3</sub>Pt Alloy Films</b> <u>Mitsuru Ohtake</u> <sup>1</sup> , <u>Daisuke Suzuki</u> <sup>1</sup> , <u>Masaaki Futamoto</u> <sup>1</sup> , <u>Fumiyoshi Kirino</u> <sup>2</sup> , <u>Nobuyuki Inaba</u> <sup>3</sup> 1: Chuo University, Japan; 2: Tokyo University of the Arts, Japan; 3: Yamagata University, Japan
10:30am - 11:00am	<b>Coffee Break</b>
11:00am - 12:45pm	<b>Spintronics &amp; Magnetic Instrumentation</b> Location: <b>E17</b> Chair: <b>Manuel Vázquez</b> , Instituto de Ciencia de Materiales de Madrid-CSIC; <a href="mailto:mvazquez@icmm.csic.es">mvazquez@icmm.csic.es</a>
TO20:	<b>Electric-field control of domain wall nucleation and pinning in a metallic ferromagnet</b> <i>Invited</i> <u>Anne Bernard-Mantel</u> <sup>1</sup> , <u>L. Herrera-Diez</u> <sup>1</sup> , <u>L. Ranno</u> <sup>1</sup> , <u>S. Pizzini</u> <sup>1</sup> , <u>J. Vogel</u> <sup>1</sup> , <u>D. Givord</u> <sup>1</sup> , <u>S. Auffret</u> <sup>2</sup> , <u>O. Boulle</u> <sup>2</sup> , <u>I. M. Miron</u> <sup>2</sup> , <u>G. Gaudin</u> <sup>2</sup> 1: CNRS/Institut Néel, France; 2: SPINTEC
TO21:	<b>Magneto-Transport Properties of Co/Pt-based Pseudo-Spin-Valves</b> <u>Patrick Matthes</u> <sup>1</sup> , <u>Sri Sai Phani Kanth Arekapudi</u> <sup>1</sup> , <u>Manfred Albrecht</u> <sup>1,2</sup> 1: Institute of Physics, TU Chemnitz, 09107 Chemnitz, Germany; 2: Institute of Physics, University of Augsburg, 86159 Augsburg, Germany
TO22:	<b>MOKE Microscopy and low field domain magnetoresistance of patterned La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> thin films</b> <u>Stephane Flament</u> <sup>1</sup> , <u>Dalal Fadil</u> <sup>1</sup> , <u>Paolo Perna</u> <sup>2</sup> , <u>Jean-Marc Routoure</u> <sup>1</sup> , <u>Bruno Guillet</u> <sup>1</sup> , <u>Sheng Wu</u> <sup>1</sup> , <u>Sylvain Lebargy</u> <sup>1</sup> , <u>Julien Gasnier</u> <sup>1</sup> , <u>Davide Maccariello</u> <sup>2</sup> , <u>Julio Camarero</u> <sup>2</sup> , <u>Laurence Mechin</u> <sup>1</sup> 1: GREYC UMR 6072, ENSICAEN & Université de Caen, France; 2: IMDEA-Nanoscience, Madrid, Spain

<p>TO23:</p> <p>TO24:</p> <p>TO25:</p>	<p><b>Towards wafer scale inductive determination of magnetostatic, dynamic and spin torque material parameters of magnetic thin films and multilayers</b>  <u>Sibylle Sievers</u><sup>1</sup>, <u>Niklas Liebing</u><sup>1</sup>, <u>Paul Nass</u><sup>1</sup>, <u>Santiago Serrano-Guisan</u><sup>2</sup>, <u>Massimo Pasquale</u><sup>3</sup>, <u>Hans Werner Schumacher</u><sup>1</sup>, <u>Witold Skowroński</u><sup>4</sup>, <u>Tomasz Stobiecki</u><sup>4</sup>, <u>Karsten Rott</u><sup>5</sup>, <u>Günter Reiss</u><sup>5</sup>  1: Physikalisch-Technische Bundesanstalt, Germany; 2: International Iberian Nanotechnology Laboratory, Braga, Portugal; 3: Istituto Nazionale di Ricerca Metrologica, Torino, Italy; 4: AGH University of Science and Technology, Department of Electronics, Krakow, Poland; 5: Bielefeld University, Department of Physics, Bielefeld, Germany</p> <hr/> <p><b>High Frequency Magneto-Impedance response of thin film microstructures using coplanar waveguides</b>  <u>Eduardo Fernandez</u><sup>1</sup>, <u>Alfredo Garcia-Arribas</u><sup>1,2</sup>, <u>Andrey V. Svalov</u><sup>1</sup>, <u>Galina V. Kurlyandskaya</u><sup>1</sup>, <u>Ane Barrainkua</u><sup>1</sup>  1: Dept. de Electricidad y Electrónica, Universidad del País Vasco (UPV/EHU), Bilbao, Spain; 2: BCMaterials, Universidad del País Vasco (UPV/EHU), Bilbao, Spain</p> <hr/> <p><b>Controlled single-domain wall motion in microwires</b>  <u>Alejandro Jiménez</u>, <u>Manuel Vázquez</u>  Instituto de Ciencia de Materiales de Madrid-CSIC, Spain</p>
<p><b>12:45pm</b> - <b>2:00pm</b></p>	<p><b>Lunch/Buffer</b></p>
<p><b>2:00pm</b> - <b>3:30pm</b></p> <p>TO30:</p> <p>TO31:</p> <p>TO32:</p> <p>TO33:</p>	<p><b>Nanomagnetism &amp; Magnetic Nanostructures</b>  Location: <b>E17</b>  Chair: <b>Tim St Pierre</b>, The University of Western Australia; <a href="mailto:tim.stpierre@uwa.edu.au">tim.stpierre@uwa.edu.au</a></p> <hr/> <p><b>Functional magnetic nanoparticles for high frequency and biosensor applications</b> <i>Invited</i>  <u>Hari Srikanth</u>  University of South Florida, United States of America</p> <hr/> <p><b>Influence of geometry on domain wall dynamics in permalloy nanodevices</b>  <u>Héctor Corte-León</u><sup>1,2</sup>, <u>Anthony Beguivin</u><sup>3</sup>, <u>Patryk Krzysteczko</u><sup>4</sup>, <u>Hans W. Schumacher</u><sup>4</sup>, <u>Alessandra Manzin</u><sup>5</sup>, <u>Russell P. Cowburn</u><sup>3</sup>, <u>Vladimir Antonov</u><sup>2</sup>, <u>Olga Kazakova</u><sup>1</sup>  1: National Physical Laboratory, Hampton Road, Teddington, UK; 2: Physics Department, Royal Holloway, University of London, Egham, UK; 3: Cavendish Laboratory, University of Cambridge, UK; 4: Physikalisch-Technische Bundesanstalt, Braunschweig, Germany; 5: Istituto Nazionale di Ricerca Metrologica (INRIM), Torino, Italy</p> <hr/> <p><b>Anomalous Magnetic Properties of Fe-doped Pd Nanofilms</b>  <u>Lyudmila Uspenskaya</u><sup>1</sup>, <u>Ivan Khlustikov</u><sup>2</sup>, <u>Vitalii Bolginov</u><sup>1</sup>  1: ISSP RAS, Russian Federation; 2: P.L. Kapitza Institute for Physical Problems RAS, Russian Federation</p> <hr/> <p><b>Effect of disorder on anisotropic magnetoresistance in Ni<sub>80</sub>Fe<sub>20</sub> antidot arrays having hexagonal lattice</b>  <u>Paola Tiberto</u><sup>1</sup>, <u>Gabriele Barrera</u><sup>1,2</sup>, <u>Federica Celegato</u><sup>1</sup>, <u>Marco Coisson</u><sup>1</sup>, <u>Emanuele Enrico</u><sup>1</sup>, <u>Alessandra Manzin</u><sup>1</sup>, <u>Franco Vinai</u><sup>1</sup>  1: INRIM, Torino, Italy; 2: Dipartimento di Chimica, Università di Torino, Torino, Italy</p>

TO34:	<p><b>Microwave absorption properties of permalloy nanodots in the vortex and quasi-uniform ground states</b></p> <p><u>Konstantin Gusliyenko</u><sup>1,2</sup>, <u>Gleb Kakazei</u><sup>3</sup>, <u>Yurii Kobljanskyj</u><sup>4</sup>, <u>Gennadii Melkov</u><sup>4</sup>, <u>Valentyn Novosad</u><sup>5</sup>, <u>Andrei Slavin</u><sup>6</sup></p> <p>1: Universidad del País Vasco, UPV/EHU, Spain; 2: IKERBASQUE, The Basque Foundation for Science, Bilbao, Spain; 3: IFIMUP, IN-Institute of Nanoscience &amp; Nanotechnology, Departamento de Física e Astronomia, Universidade do Porto, Porto, Portugal; 4: Faculty of Radiophysics, Taras Shevchenko National University of Kyiv, Kyiv, Ukraine; 5: Materials Science Division, Argonne National Laboratory, Argonne, Illinois, USA; 6: Department of Physics, Oakland University, Rochester, Michigan, USA</p>
3:30pm - 4:00pm	<b>Coffee Break</b>
4:00pm - 5:30pm	<p><b>Poster Session</b> Location: <b>Poster Session Hall</b></p> <p><b>Size Effects in Magnetic Properties of <math>\text{Sm}_{0.4}\text{Ca}_{0.6}\text{MnO}_3</math> on the Nanoscale</b></p> <p><u>Vladimir Iosef Markovich</u><sup>1</sup>, <u>Baruch Dolgin</u><sup>1</sup>, <u>Roman Puzniak</u><sup>2</sup>, <u>Ivan Fita</u><sup>3</sup>, <u>Andrzej Wisniewski</u><sup>2</sup>, <u>Dmitrii Mogilyansky</u><sup>4</sup>, <u>Gad Gorodetsky</u><sup>1</sup>, <u>Grzegorz Grzegorz</u><sup>1</sup></p> <p>1: Ben-Gurion University of the Negev, Israel; 2: Institute of Physics, Polish Academy of Sciences, Warsaw, Poland; 3: Donetsk Institute for Physics and Technology, Donetsk, Ukraine; 4: The Ilse Katz Institute for Nanoscale Science and Technology, Ben-Gurion University of the Negev, Beer-Sheva, Israel</p> <hr/> <p><b>The Electrodeposited CoFe/Cu Multilayers: Influence of Ferromagnetic and Non-Ferromagnetic Layer Thicknesses</b></p> <p><u>Atakan Tekgül</u><sup>1,2</sup>, <u>Mürsel Alper</u><sup>2</sup>, <u>Hakan Kockar</u><sup>3</sup></p> <p>1: Department of Physics, Akdeniz University, Antalya, Turkey; 2: Department of Physics, Uludag University, Bursa, Turkey; 3: Department of Physics, Balikesir University, Balikesir, Turkey</p> <hr/> <p><b>Relationship between thermal stability and layer-stack/structure of NiMn-based GMR systems</b></p> <p><u>Anja Wienecke</u>, <u>Lutz Rissing</u> Leibniz Universität Hannover, Germany</p> <hr/> <p><b>Reversible Hydrogenation Effect on Magnetic and Optical Properties of Perpendicularly Magnetized Co/Pd Multilayer Nanostructures</b></p> <p><u>Wen-Chin Lin</u><sup>1</sup>, <u>Cheng-Jui Tsai</u><sup>1</sup>, <u>X. M. Liu</u><sup>2</sup>, <u>Adekunle O. Adeyeye</u><sup>2</sup></p> <p>1: National Taiwan Normal University, Taiwan, Republic of China; 2: National University of Singapore, Singapore</p> <hr/> <p><b>Voltage-induced reversible and irreversible changes in the magnetic coercivity of Fe/ZnO heterostructures</b></p> <p><u>Wen-Chin Lin</u>, <u>Po-Chun Chang</u>, <u>Cheng-Jui Tsai</u>, <u>Tsung-Chun Shieh</u>, <u>Fang-Yuh Lo</u> National Taiwan Normal University, Taiwan, Republic of China</p> <hr/> <p><b>Performance of Magneto-Electro-Responsive Material in Bending Actuation</b></p> <p><u>Karat Petcharoen</u>, <u>Anuvat Sirivat</u> The Petroleum and Petrochemical College, Thailand</p> <hr/> <p><b>Magnetic and Structural Properties of Nickel Zinc Ferrites Doped With Yttrium</b></p> <p><u>Martin Šoka</u><sup>1</sup>, <u>Mariana Ušáková</u><sup>1</sup>, <u>Elemír Ušák</u><sup>1</sup>, <u>Rastislav Dosoudil</u><sup>1</sup>, <u>Edmund Dobročka</u><sup>2</sup></p> <p>1: Slovak University of Technology in Bratislava, Faculty of Electrical Engineering and Information Technology, Slovak Republic; 2: Slovak Academy of Sciences, Institute of Electrical Engineering, Slovak Republic</p>

TP08:	<p><b>Transformation of the Domain Wall Structure in Permalloy Nanotape under Electrical Current Pulses</b></p> <p><u>Lyudmila Uspenskaya</u><sup>1</sup>, Sergey Egorov<sup>1</sup>, Vladimir Skidanov<sup>2</sup></p> <p>1: Institute of Solid State Physics RAS, Russian Federation; 2: Institute for Design Problems in Microelectronics RAS, Russian Federation</p>
TP09:	<p><b>Soft Magnetic Properties of Permalloy Thin Films on Polyimide-based Substrates</b></p> <p><u>Johannes Rittinger</u>, Piriya Taptimthong, Lutz Rissing</p> <p>Leibniz Universitaet Hannover, Germany</p>
TP10:	<p><b>Lifetime measurements for CoFeB/MgO/CoFeB tunneling junctions</b></p> <p><u>Andres Conca</u><sup>1</sup>, Frederick Casper<sup>2,3</sup>, Johannes Paul<sup>4</sup>, Ronald Lehndorff<sup>4</sup>, Britta Leven<sup>1</sup>, Claudia Felser<sup>2,5</sup>, Burkard Hillebrands<sup>1</sup></p> <p>1: Fachbereich Physik and Landesforschungszentrum OPTIMAS, Technische Universität Kaiserslautern, 67663 Kaiserslautern, Germany; 2: Institute of Inorganic and Analytical Chemistry, Johannes Gutenberg-Universität Mainz, 55099 Mainz, Germany; 3: Institute of Physics, Johannes Gutenberg-Universität Mainz, 55099 Mainz, Germany 4Sensitec GmbH, Hechtsheimer Str. 2, 55131 Mainz, Germany; 4: Sensitec GmbH, Hechtsheimer Str. 2, 55131 Mainz, Germany; 5: Max Planck Institute for Chemical Physics of Solids, 01187 Dresden, Germany</p>
TP11:	<p><b>Local hysteresis loops measurements on magnetic nanostructures with field-dependent MFM</b></p> <p><u>Marco Coïsson</u><sup>1</sup>, Gariela Barrera<sup>1,2</sup>, Federica Celegato<sup>1</sup>, Alessandra Manzin<sup>1</sup>, Paola Tiberto<sup>1</sup>, Franco Vinali<sup>1</sup></p> <p>1: INRIM, Torino, Italy; 2: Università di Torino, Torino, Italy</p>
TP12:	<p><b>Influence of Mn-deficient on magnetocaloric effect in non-stoichiometric <math>\text{La}_{0.8}\text{Ca}_{0.2}\text{MnO}_{3+\delta}</math></b></p> <p>Dwi Nanto<sup>1</sup>, <u>Tran Dang Thanh</u><sup>1</sup>, Suhk-Kun Oh<sup>1</sup>, Nikolay Chebotaev<sup>2</sup>, Andrey Telegin<sup>2</sup>, Seong-Cho Yu<sup>1</sup></p> <p>1: Dept. of Physics, Chungbuk National University, Korea, Republic of (South Korea); 2: Institute of Metal Physics, UB of RAS, Yekaterinburg, 620990, Russia</p>
TP13:	<p><b>Nanotoxicity of carcinoma cells with different amounts of endocytic magnetic nanoparticles</b></p> <p>Chen-Yu Huang, Tzong-Rong Ger, Po-Wei Fu, Keng-Hsiang Hu, Yi-Han Peng, <u>Mei-Feng Lai</u></p> <p>National Tsing Hua University, Taiwan, Republic of China</p>
TP14:	<p><b>Magnetic characterization of <math>\text{Co}_2\text{MnAl}</math> Heusler alloy for spintronics</b></p> <p><u>Tomas Ryba</u><sup>1</sup>, Zuzana Vargova<sup>2</sup>, Rastislav Varga<sup>1</sup>, Jozef Kovac<sup>3</sup>, Pavol Diko<sup>3</sup>, V Kavecansky<sup>3</sup></p> <p>1: Institute of Physics, Faculty of Sciences, P. J. Safarik University, Park Angelinum 9, 041 54 Kosice, Slovakia; 2: Dept. Inorg. Chem., Fac. Sci., UPJS, Moyzesova 11, 041 54 Kosice, Slovakia; 3: IEF SAS, Watsonova 47, 04001Kosice</p>
TP15:	<p><b>Influence of Sn-doping on magnetocaloric properties of <math>\text{La}_{0.7}\text{Ca}_{0.3}\text{Mn}_{1-x}\text{Sn}_x\text{O}_3</math> (<math>x = 0.02</math> and <math>x = 0.04</math>) compounds</b></p> <p>Dwi Nanto, Wen-Zhe Nan, <u>Tranh Dang Thanh</u>, Seong-Cho Yu</p> <p>Dept. of Physics, Chungbuk National University, Korea, Republic of (South Korea)</p>
TP16:	<p><b>Repetitive phase transition measurements in <math>\text{Ni}_{50}\text{Mn}_{26}\text{Ga}_{24}</math>.</b></p> <p><u>Andrea Chudikova</u><sup>1</sup>, Tomas Ryba<sup>1</sup>, Zuzana Vargova<sup>2</sup>, Sergej Ilkovic<sup>3</sup>, Marian Reiffers<sup>3</sup>, Vladimir Komanicky<sup>1</sup>, Robert Gyepes<sup>4</sup>, Rastislav Varga<sup>1</sup></p> <p>1: Inst. Phys., Fac. Sci., UPJS, Slovak Republic; 2: Dept. Inorg. Chem., Fac. Sci., UPJS, Slovak Republic; 3: Univ. of Presov, Fac. Hum. and Nat. Sci., Slovak Republic; 4: Dept. of Chemistry, Faculty of Education, J. Selye University, Slovak Republic</p>

TP17:	<p><b>Investigation of driving power dependence on MI properties of thin-film elements with uniaxial anisotropy</b></p> <p><u>Hiroaki Kikuchi</u><sup>1</sup>, Shingo Kamata<sup>1</sup>, Yosuke Takahashi<sup>1</sup>, Tomoo Nakai<sup>2</sup>, Shuichiro Hashi<sup>3</sup>, Kazushi Ishiyama<sup>3</sup></p> <p>1: Iwate University, Japan; 2: Industrial Technology Institute, Miyagi Prefectural Government, Japan; 3: Tohoku University, Japan</p>
TP18:	<p><b>Magnetic properties and large magnetocaloric effect in amorphous Fe-Ag-Ni-Zr alloys for room-temperature magnetic refrigeration</b></p> <p><u>Tran Dang Thanh</u><sup>1,2</sup>, Nguyen Hai Yen<sup>2</sup>, Nguyen Huy Dan<sup>2</sup>, The-Long Phan<sup>1</sup>, Seong-Cho Yu<sup>1</sup></p> <p>1: Chungbuk National University, Korea, Republic of (South Korea); 2: Institute of Materials Science, Vietnam Academy of Science and Technology, 18-Hoang Quoc Viet, Hanoi, Vietnam</p>
TP19:	<p><b>Structural and electronic properties in chalcopyrite Mn-doped AlGaP<sub>2</sub> ternary compound</b></p> <p><u>Byung-Sub Kang</u><sup>1</sup>, Kwang-Pyo Chae<sup>1</sup>, Kyeong-Seop Kim<sup>2</sup>, Seong-Cho Yu<sup>2</sup></p> <p>1: Nanotechnology Research Center, Dept. of Nano science and Mechanical engineering, Konkuk University, Korea, Republic of (South Korea); 2: Dept. of Physics, Chungbuk National University, Korea, Republic of (South Korea)</p>
TP20:	<p><b>Flexible Magnetodes: Polyimide Neural Probes combining Impedance Electrodes with Magnetic Sensors</b></p> <p>J. Noh<sup>1</sup>, M. Costa<sup>1</sup>, H. Fonseca<sup>1</sup>, R. Ferreira<sup>1</sup>, F. Cardoso<sup>2</sup>, S. Cardoso<sup>2,3</sup>, <u>J. Gaspar</u><sup>1</sup>, P. P. Freitas<sup>1,2</sup></p> <p>1: International Iberian Nanotechnology Laboratory (INL), Braga, Portugal; 2: INESC-MN and IN, Lisbon, Portugal; 3: Instituto Superior Tecnico (IST), Lisbon, Portugal</p>
TP21:	<p><b>Magnetoelastic vs. Magnetostatic Contributions in Low Magnetostrictive Amorphous Nanowires</b></p> <p><u>Tibor-Adrian Ovari</u>, Nicoleta Lupu, Sorin Corodeanu, Horia Chiriac</p> <p>National Institute of Research and Development for Technical Physics, Romania</p>
TP22:	<p><b>Stress and Size Dependent Magneto-Impedance Effect in Amorphous Wires</b></p> <p><u>Tibor-Adrian Ovari</u>, Sorin Corodeanu, Horia Chiriac</p> <p>National Institute of Research and Development for Technical Physics, Romania</p>
TP23:	<p><b>Nanoindentation measurement of hardness and Young's modulus of amorphous and nanocrystalline FeCuNbSiB thin films</b></p> <p>Laura-Ioana Velicu<sup>1</sup>, Maria Neagu<sup>1</sup>, Lucian Costinescu<sup>2</sup>, <u>Evanghelos Hristoforou</u><sup>3</sup>, Vasile Tiron<sup>1</sup>, Daniel Munteanu<sup>2</sup></p> <p>1: Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania; 2: Department of Materials Science and Engineering, Transilvania University, Brasov, Romania; 3: Laboratory of Physical Metallurgy, National Technical University of Athens, Athens, Greece</p>
TP24:	<p><b>Nanostructured Hard Magnets: A Micromagnetic Study</b></p> <p><u>Peter Toson</u>, Ahmad Asali, Wolfgang Wallisch, Gregor Zickler, Josef Fidler</p> <p>Vienna University of Technology, Austria</p>
TP25:	<p><b>Effect of Rare-Earth Substitution on Magnetic Properties of Nickel Zinc Ferrites</b></p> <p><u>Jozef Paľa</u>, Martin Šoka, Marianna Ušáková</p> <p>Slovak University of Technology in Bratislava, Bratislava, Slovakia, Slovak Republic</p>
TP26:	<p><b>Characterization of nanostructured Ni-ferrites as humidity sensor materials at room temperature</b></p> <p><u>Dalibor L Sekulic</u><sup>1</sup>, Zorica Z Lazarevic<sup>2</sup>, Cedomir D Jovalekic<sup>3</sup>, Milos B Zivanov<sup>1</sup>, Nebojsa Z Romcevic<sup>2</sup></p> <p>1: Faculty of Technical Sciences, University of Novi Sad, Serbia; 2: Institute of Physics, University of Belgrade, Serbia; 3: The Institute for Multidisciplinary Research, University of Belgrade, Serbia</p>

TP27:	<p><b>Structural Analysis Relationship to Noise Characteristics of Glass-Coated Magnetic Microwires</b>  <u>Miroslav Šmelko</u><sup>1</sup>, <u>Jozef Kravčák</u><sup>2</sup>, <u>Dušan Praslička</u><sup>1</sup>, <u>Katarína Draganová</u><sup>1</sup>, <u>Miroslav Laššák</u><sup>1</sup>  1: Technical University of Košice, Faculty of Aeronautics, Slovak Republic; 2: Technical University of Košice, Faculty of Electrical Engineering and Informatics, Slovak Republic</p>
TP28:	<p><b>Quantification of Switching Field Offset in Amorphous Fe-based Microwires</b>  <u>Dušan Praslička</u>, <u>Miroslav Šmelko</u>, <u>Pavol Lipovský</u>, <u>Viktor Kán</u>, <u>Norbert Flachbart</u>  Technical University of Košice, Faculty of Aeronautics, Slovak Republic</p>
TP29:	<p><b>Multiferroic Polymer Nanocomposite for Flexible Electronics</b>  <u>Mohammed Alnassar</u>, <u>Yurii Ivanov</u>, <u>Jürgen Kosel</u>  King Abdullah University of Science &amp; Technology, Saudi Arabia</p>
TP30:	<p><b>Measurement method for determining the magnetic properties of magnetic fluids in rotating magnetic field</b>  <u>Milos Bekovic</u>, <u>Mladen Trlep</u>, <u>Jesenik Marko</u>, <u>Gorican Viktor</u>, <u>Hamler Anton</u>  University of Maribor, Faculty of electrical engineering and computer science, Slovenia</p>
TP31:	<p><b>Superparamagnetic nanoparticle detection using gradiometer induction sensors for intraoperative localization of the sentinel lymph node in cancer treatment</b>  <u>Kaveh Mohamadabadi</u><sup>1</sup>, <u>Hervé Simon</u><sup>2</sup>, <u>Christophe Coillot</u><sup>4</sup>, <u>Laurent Mengus</u><sup>2</sup>, <u>Jacques Chambron</u><sup>2</sup>, <u>Christophe Goze-Bac</u><sup>4</sup>, <u>Julien Joughannaud</u><sup>3</sup>, <u>Antonio Garofalo</u><sup>3</sup>, <u>Delphine Felder-Flesch</u><sup>3</sup>, <u>Geneviève Pourroy</u><sup>3</sup>  1: Laboratory for Plasmas Physics, Ecole Polytechnique, Route de Saclay, 91128 PALAISEAU, FRANCE; 2: Eurorad Company, 2 rue Ettore Bugatti, 67201 ECKBOLSHEIM, FRANCE; 3: IPCMS, UMR 7504 CNRS-Université de Strasbourg, 23 rue du Loess, 67034 STRASBOURG, FRANCE; 4: Laboratory Charles Coulomb-BioNanoMRI Team, University Montpellier 2, Place Eugene Bataillon, 34095 MONTPELLIER, FRANCE</p>
TP32:	<p><b>Strategies for pTesla field detection in biomedical imaging using magnetoresistive sensors with a soft pinned sensing layer</b>  <u>João Pedro Valadeiro</u><sup>1,2</sup>, <u>José Pedro Amaral</u><sup>1,2</sup>, <u>Ricardo Ferreira</u><sup>3</sup>, <u>Susana Cardoso</u><sup>1,2</sup>, <u>Paulo Peixeiro Freitas</u><sup>1,3</sup>  1: INESC-MN, Lisboa, Portugal; 2: Instituto Superior Técnico, Universidade Técnica de Lisboa, Lisboa, Portugal; 3: INL, Braga, Portugal</p>
TP33:	<p><b>Audio Sound Microsensor based on Magnetic Co-Fe-Si-B Thin Amorphous Microwires for Medical Applications</b>  <u>Horia Chiriac</u>, <u>Costica Hlenschi</u>, <u>Alexandru Atitoaie</u>, <u>Nicoleta Lupu</u>  National Institute of R&amp;D for Technical Physics, Iasi, Romania</p>
TP34:	<p><b>Influence of DC bias on the electrical characteristics of SMD inductors</b>  <u>Čedo J. Žlebič</u><sup>1</sup>, <u>Dragan R. Kljajić</u><sup>1</sup>, <u>Nelu V. Blaž</u><sup>1</sup>, <u>Ljiljana D. Živanov</u><sup>1</sup>, <u>Aleksandar B. Menićanin</u><sup>2</sup>, <u>Mirjana S. Damnjanović</u><sup>1</sup>  1: Faculty of Technical Sciences, Serbia; 2: Institute of Multidisciplinary Research, Serbia</p>
TP35:	<p><b>Crystallization Process and Magnetic Properties of Fe-rich Nanocrystals Embedded on Amorphous Magnetic Ribbons</b>  <u>Erilaine B. Peixoto</u><sup>1</sup>, <u>Samuel G. Mecena</u><sup>2</sup>, <u>Leonardo de S. Silva</u><sup>1</sup>, <u>Edielma C. Mendonça</u><sup>1</sup>, <u>Cristiano T. Meneses</u><sup>2</sup>, <u>J. G. S. Duque</u><sup>2</sup>  1: Dep. de Física, Campus prof. Aluísio de Campos, UFS, 49100-000, São Cristóvão, SE, Brazil; 2: Dep. de Física, Campus prof. Alberto Carvalho, UFS, 49500-000 Itabaiana, SE, Brazil</p>



TP36:	<p><b>Numerical and Experimental Study of the Eddy Current Non-destructive Testing of Stress in Magnetic Materials</b></p> <p><u>Abla DAHIA</u><sup>1</sup>, Eric BERTHELOT<sup>1</sup>, Yann LE BIHAN<sup>1</sup>, Laurent DANIEL<sup>1,2</sup></p> <p>1: LGEP, France; 2: School of Materials, Manchester</p>
TP37:	<p><b>Preparation of <math>\alpha</math>-Fe/Nd-Fe-B nano-composite film magnets applied for a micro-motor</b></p> <p><u>Masaki Nakano</u>, Kousuke Motomura, Kenji Fujiyama, Takeshi Yanai, Hirotooshi Fukunaga</p> <p>Nagasaki University, Japan</p>
TP38:	<p><b>Magnetic and structural characterization of powders obtained by mechanical grinding of <math>\text{Fe}_{73.5}\text{Cu}_1\text{Nb}_3\text{Si}_{13.5}\text{B}_9</math> ribbons</b></p> <p>Luiza Budeanu<sup>1,2</sup>, <u>Horia Chiriac</u><sup>1</sup>, Maria Neagu<sup>2</sup>, Laura-Ioana Velicu<sup>2</sup></p> <p>1: National Institute of Research &amp; Development for Technical Physics, Iasi, Romania; 2: Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania</p>
TP39:	<p><b>Precise scalar calibration of Braunbek system</b></p> <p><u>Ales Zikmund</u><sup>1</sup>, Pavel Ripka<sup>1</sup>, Martin Albrecht<sup>2</sup>, Rainer Ketzler<sup>2</sup></p> <p>1: Czech technical University in Prague, Czech Republic; 2: Physikalisch-Technische Bundesanstalt, Germany</p>
TP40:	<p><b>Magnetostrictive Polycrystalline Fe-Ga Microwires for Energy Harvesting Devices</b></p> <p><u>Nicoleta Lupu</u>, Iulian Murgulescu, Mihaela Grigoras, Gabriel Ababei, Horia Chiriac</p> <p>National Institute of Research and Development for Technical Physics, Iasi, Romania</p>
TP41:	<p><b>Synthesis of manganese ferrites for sensor application</b></p> <p><u>Elena Vasilica Gafton</u><sup>1</sup>, Ioan Dumitru<sup>1</sup>, Ovidiu Florin Caltun<sup>1</sup>, Adrian Borhan<sup>2</sup>, Andrei Diaconu<sup>2</sup>, Irina Valentina Vararu<sup>2</sup>, Mircea Nicolae Palamaru<sup>2</sup>, Alexandra Raluca Iordan<sup>2</sup></p> <p>1: Faculty of Physics and Carpath Center, Alexandru Ioan Cuza University from Iasi, Romania, Romania; 2: Faculty of Chemistry, Alexandru Ioan Cuza University from Iasi, Romania</p>
TP42:	<p><b>Preparation and characterisation for InSb for magneto-thermoelectric applications</b></p> <p><u>Muhammad Al-Baghdadi</u>, Fatih Anayi, Min Gao</p> <p>Cardiff University, United Kingdom</p>
TP43:	<p><b>In-plane Transverse Susceptibility of (111)-oriented Iron Garnet Films</b></p> <p><u>I.I. Syvorotka</u><sup>1</sup>, I.M. Syvorotka<sup>1</sup>, V.G. Shavrov<sup>2</sup>, V.A. Skidanov<sup>3</sup>, P.M. Vetoshko<sup>2</sup></p> <p>1: Department of Crystal Physics, SRC "Carat", Lviv, Ukraine; 2: Institute of Radioengineering and Electronics, Moscow, Russia; 3: Institute for Design Problems in Microelectronics, Moscow, Russia</p>
TP44:	<p><b>Influence of crystallite size on magnetocaloric effect and critical behavior in <math>\text{La}_{0.7}\text{Sr}_{0.3}\text{Mn}_{0.92}\text{Co}_{0.08}\text{O}_3</math> nanoparticles</b></p> <p><u>Tran Dang Thanh</u><sup>1,2</sup>, Thi Anh Ho<sup>1</sup>, Tien Van Manh<sup>1</sup>, The-Long Phan<sup>1</sup>, Seong-Cho Yu<sup>1</sup></p> <p>1: Chungbuk National University, Korea, Republic of (South Korea); 2: Institute of Materials Science, Vietnam Academy of Science and Technology, 18-Hoang Quoc Viet, Hanoi, Vietnam</p>
TP45:	<p><b>Ab initio Investigation of Structural, Magnetic and Electronic Properties of Fe-(Ni)-Mn-Al Heusler Alloys</b></p> <p><u>Mikhail A. Zagrebin</u><sup>1,2</sup>, Vasiliy D. Buchelnikov<sup>2</sup>, Marina A. Tufatullina<sup>2</sup>, Vladimir V. Sokolovskiy<sup>2,3</sup></p> <p>1: National Research South Ural State University, Chelyabinsk, Russian Federation; 2: Chelyabinsk State University, Chelyabinsk, Russian Federation; 3: National University of Science and Technology "MIS&amp;S", Moscow, Russia</p>

TP46:	<p><b>Magnetic and magnetostrictive behavior of rare earth doped cobalt ferrite bulk materials</b>  Georgiana Andreea Bulai<sup>1</sup>, Lucian Diamandescu<sup>2</sup>, Silviu Gurlui<sup>1</sup>, Marcel Feder<sup>2</sup>, Ovidiu Florin Caltun<sup>1</sup>, Ioan Dumitru<sup>1</sup>  1: Alexandru Ioan Cuza University of Iasi, Faculty of Physics, 700506 Iasi, Romania; 2: National Institute of Materials Physics, 77125 Bucharest-Magurele, Romania</p>
TP47:	<p><b>Arbitrary Equilibrium State of Domain Wall in Uniaxial Garnet Film Sensitive Element</b>  Petr Vetoshko<sup>1</sup>, Vladimir Skidanov<sup>2</sup>, Fedor Vetoshko<sup>2</sup>  1: Institute of Radioengineering and Electronics, Academy of Sciences of Russia, Russian Federation; 2: Institute for Design Problems in Microelectronics RAS, Moscow, Russia</p>
TP48:	<p><b>An Eddy Current System for the Study of the Cranial Rhythmic Impulse</b>  Andre-Emmanuel Ozout<sup>1</sup>, Gaëlle Herivan<sup>1</sup>, Yann Le Bihan<sup>2</sup>, Laurent Stubbe<sup>1</sup>, Eric Berthelot<sup>2</sup>  1: ESO Paris Recherche, Ecole Supérieure d'Ostéopathie - Paris; 2: Laboratoire de Génie Electrique de Paris, CNRS - Supélec - UPSud - UPMC</p>
TP49:	<p><b>Magnetic counter for Group B streptococcus detection in milk</b>  Carla Margarida Duarte<sup>1,2</sup>, Ana Carolina Fernandes<sup>1</sup>, Ricardo Bexiga<sup>2</sup>, Susana Freitas<sup>1,3</sup>, Paulo Freitas<sup>1,3</sup>  1: INESC-MN—Instituto de Engenharia de Sistemas e Computadores—Microsistemas e Nanotecnologias and IN—Institute of Nanoscience and Nanotechnology; 2: CIISA, Veterinary Medicine Faculty, Technical University of Lisbon; 3: Physics Department, Instituto Superior Técnico</p>
TP50:	<p><b>Micromagnetic modelling and experimental aspects on superparamagnetic nanobeads manipulation and detection using planar hall effect sensors</b>  Marius Volmer<sup>1</sup>, Marioara Avram<sup>2</sup>  1: Transilvania University of Brasov, Romania; 2: National Institute for Research and Development in Microtechnologies, Bucharest, Romania</p>
TP51:	<p><b>Enhanced Domain Wall Speed in CoFeB-Permalloy nanowire</b>  Junxiang Lin, Sarjoosing Goolaup, W S Lew  Nanyang Technological University, Singapore</p>
TP52:	<p><b>Magnetic domains and martensitic structure of Ni-Mn-Ga melt-spun ribbons</b>  Rostislav Grechishkin<sup>1</sup>, Oleg Gasanov<sup>1</sup>, Franca Albertini<sup>2</sup>, Svetlana Ilyashenko<sup>2</sup>, Elvina Kalimullina<sup>3</sup>, Victor Koledov<sup>3</sup>, Vladimir Shavrov<sup>3</sup>  1: Tver State University, Tver, Russia; 2: IMEM-CNR, 43124 Parma, Italy; 3: Kotel'nikov Institute of Radio Engineering and Electronics of RAS, Russian Federation</p>
TP53:	<p><b>Transition from spin glass state to ferromagnetic state and its influence on transport characteristics of <math>\text{La}_{0.5}\text{Pr}_{0.2}\text{Pb}_{0.3-x}\text{Sr}_x\text{MnO}_3</math> manganites</b>  Mihail Liviu Craus<sup>1,2</sup>, Nicoleta Cornei<sup>3</sup>, Ivan Bobrikov<sup>1</sup>, Vitalji Turchenko<sup>1</sup>, Valery Simkin<sup>1</sup>  1: Joint Institute for Nuclear Research, Dubna, Moscow region, Russian Federation; 2: National Institute of Research and Development for Technical Physics, Iasi, Romania; 3: "Al. I. Cuza" University, Iasi, Romania</p>
TP54:	<p><b>High coercivity in Fe-Nb-B-Dy bulk nanocrystalline magnets</b>  Grzegorz Ziólkowski<sup>1</sup>, Artur Chrobak<sup>1</sup>, Joanna Klimontko<sup>1</sup>, Nirina Randrianantoandro<sup>2</sup>  1: Institute of Physics, University of Silesia, Uniwersytecka 4, 40-007 Katowice, Poland; 2: LUNAM Université- Université du Maine, Institut des Molécules et des Matériaux du Mans UMR CNRS 6283, Avenue Olivier Messaien, 72085 Le Mans cedex 9, France</p>

TP55:	<p><b>Spin Diffusion in Silicon from a Ferromagnetic Contact</b>  <u>Joydeep Ghosh</u>, Viktor Sverdlov, Siegfried Selberherr  TU Wien, Austria</p>
TP56:	<p><b>Micromagnetic Modeling of a Bias-Field-Free Spin-Torque Oscillator Based on Two MgO-MTJs with a Shared Free Layer</b>  <u>Alexander Makarov</u>, Thomas Windbacher, Viktor Sverdlov, Siegfried Selberherr  Institute for Microelectronics, TU Wien, Austria</p>
TP57:	<p><b>The influence of high – energy ball milling on structure and magnetic properties of Dy(Ni<sub>0.8</sub>Fe<sub>0.2</sub>)<sub>3</sub></b>  <u>Krzysztof Ociepka</u><sup>1</sup>, Ania Bajorek<sup>1</sup>, Artur Chrobak<sup>1</sup>, Grażyna Chelkowska<sup>1</sup>, Krytlan Prusik<sup>2</sup>  1: A.Chelkowski Institute of Physics, University of Silesia, Uniwersytecka 4, 40-007 Katowice, Poland; 2: Institute of Materials Science, University of Silesia, Bankowa 12, 40-007 Katowice, Poland</p>
TP58:	<p><b>In vivo monitoring of orthopaedic implant wear using amorphous ribbons</b>  David Okhiria<sup>1</sup>, Dia Eldean Giebaly<sup>2</sup>, <u>Turgut Meydan</u><sup>1</sup>, Peter Theobald<sup>3</sup>, Samuel Bigot<sup>4</sup>  1: Wolfson Centre for Magnetics, Cardiff School of Engineering, Cardiff CF24 3AA, UK; 2: Dept. Of Trauma and Orthopaedics, University College Hospital, London NW1 2BU; 3: Biomedical Engineering Research Group, Cardiff School of Engineering, CF24 3AA, UK; 4: High Value Manufacturing Group, Cardiff School of Engineering, CF24 3AA, UK</p>
TP59:	<p><b>bcc Phase Formation in Fe, Co, and Ni Thin Films Deposited on GaAs(110) Substrates</b>  <u>Takahiro Soda</u><sup>1</sup>, Shigeyuki Minakawa<sup>1</sup>, Mitsuru Ohtake<sup>1</sup>, Masaaki Futamoto<sup>1</sup>, Nobuyuki Inaba<sup>2</sup>  1: Chuo University, Japan; 2: Yamagata University, Japan</p>
TP60:	<p><b>Effect of Carbon Protection Layer on the Performance of Magnetic Force Microscope Tip</b>  <u>Keiichi Kato</u><sup>1</sup>, Mitsuru Ohtake<sup>1</sup>, Masaaki Futamoto<sup>1</sup>, Nobuyuki Inaba<sup>2</sup>, Fumiyoshi Kirino<sup>3</sup>  1: Chuo University, Japan; 2: Yamagata University, Japan; 3: Tokyo University of the Arts, Japan</p>
TP61:	<p><b>Inductance Enhancement of Ferrite LTCC Inductor</b>  <u>Andrea Maric</u><sup>1</sup>, Nelu Blaz<sup>1</sup>, Ljiljana Zivanov<sup>1</sup>, Goran Radosavljevic<sup>2</sup>  1: Faculty of Technical Sciences, University of Novi Sad, Serbia; 2: Institute for Sensor and Actuator Systems, Vienna University of Technology, Vienna, Austria</p>
TP62:	<p><b>Measurement and Comparison of Electromechanical Coupling Factors in Magnetostrictive Materials</b>  <u>Hiroyuki Wakiwaka</u>, Kunihisa Tashiro, Takanori Igarashi  Shinshu University, Japan</p>
TP63:	<p><b>Low-temperature investigation of the electronic- and band-structures and magnetic properties of diluted ferromagnetic semiconductors</b>  <u>Oksana Yastrubchak</u>  UMCS, Poland</p>
TP64:	<p><b>Half metal ferromagnetism in Sn<sub>2</sub>Co<sub>3</sub>S<sub>2</sub> type half antiperovskites</b>  <u>Richard Weihrich</u>, Florian Pielhofer, Samuel Tragl, Jan Rothballer  Universitaet Regensburg, Germany</p>
TP65:	<p><b>Diffuse Temperature Control of an Incubator</b>  <u>Juan Carlos Aviles</u>  UMSA, Bolivia, Pluinational State of</p>

TP66:	<b>Ferromagnetic and magnetoelastic resonance of magnetic microwires for wireless biosensors</b> <u>Pilar Marin</u> Universidad Complutense, Spain
TP67:	<b>Optimization of Functional Parameters of Magnetoresistive Fe<sub>20</sub>Ni<sub>80</sub>/Fe<sub>50</sub>Mn<sub>50</sub>/ Fe<sub>20</sub>Ni<sub>80</sub> Films</b> V.N. Lepalovskij, P.A. Savin, A.N. Gor'kovenko, <u>A.A. Yuvchenko</u> , V.O. Vas'kovskiy Ural Federal University, Russian Federation
TP68:	<b>Estimation of effective permeability for dumbbell-shaped magnetic cores</b> <u>Kunihisa Tashiro</u> , Hiroyuki Wakiwaka, Gen-ya Hattori Spin Device Technology Center, Shinshu University, Japan
TP69:	<b>Temperature Dependence of Minor Hysteresis Loop in NiZn Ferrite Measured by Lock-in Amplifier</b> Ryunosuke Tanaka, Maki Sasaki, <u>Takashi Shirane</u> Sendai National College of Technology, Japan
<b>7:00pm</b> - <b>11:00pm</b>	<b>Conference Banquet</b> "Luftburg" Waldsteingartenstraße 128, Prater 1020 Vienna

<b>Date: Wednesday, 09/Jul/2014</b>	
8:00am - 9:00am	<b>Registration</b> Location: <b>Registration Area</b>
9:00am - 10:30am	<b>Magnetic Materials &amp; Measurements</b> Location: <b>EI7</b> Chair: <b>Jose M. Barandiaran</b> , Universidad del País Vasco; <a href="mailto:manub@we.lc.ehu.es">manub@we.lc.ehu.es</a>
WO10:	<b>Nanocrystalline Materials for High Frequency Applications – Inductors, Sensors and Shielding</b> <i>Invited</i> <u>Christian Polak</u> Vacuumschmelze GmbH & CO. KG, Germany
WO11:	<b>Radio-Frequency Range Magnetolectric Effect Measured at High Temperature</b> <u>Andoni Lasheras</u> <sup>1,2</sup> , <u>Jon Gutiérrez</u> <sup>1,2</sup> , <u>José Manuel Barandiarán</u> <sup>1,2</sup> , <u>Alberto Maceiras</u> <sup>1,2</sup> , <u>Jose Luis Vilas</u> <sup>1,2</sup> , <u>Luis León</u> <sup>1,2</sup> 1: Universidad del País vasco/Euskal Herriko Unibertsitatea, Faculty of Science and Technology, Bilbao, Spain; 2: BCMaterials, Parque Científico y Tecnológico de Bizkaia, Derio, Spain
WO12:	<b>Pulsed Field Measurement Technique for Characterising Permanent Magnets for Real World Conditions</b> <u>Michael Hall</u> <sup>1</sup> , <u>Stuart Harmon</u> <sup>1</sup> , <u>Steven Turner</u> <sup>1</sup> , <u>Nick Hillier</u> <sup>1</sup> , <u>Rory Pemberton</u> <sup>2</sup> 1: National Physical Laboratory, United Kingdom; 2: School of Metallurgy and Materials, University of Birmingham, United Kingdom
WO13:	<b>Demagnetization of Current Transformers</b> <u>Pavel Ripka</u> <sup>1</sup> , <u>Karel Draxler</u> <sup>1</sup> , <u>Jan Bauer</u> <sup>1</sup> , <u>Renata Styblikova</u> <sup>2</sup> 1: Czech Technical University, Prague, Czech Republic; 2: Czech Metrology Institute, Prague, Czech Republic
WO14:	<b>Magnetostrictive Materials for Sensors</b> <u>Roland Grössingerr</u> , <u>Reiko Sato</u> , <u>Stephan Sorta</u> Techn. Univ. Vienna, Austria
10:30am - 11:00am	<b>Coffee Break</b>
11:00am - 12:45pm	<b>Transducers &amp; Testing</b> Location: <b>EI7</b> Chair: <b>Horia Chiriac</b> , National Institute of Research and Development for Technical Physics; <a href="mailto:hchiriac@phys-iasi.ro">hchiriac@phys-iasi.ro</a>
WO21:	<b>Magnetic-field-controlled submicron size composite actuator based on Ni-Mn-Ga FMSA melt-spun ribbon</b> <u>Victor Koledov</u> <sup>1,4</sup> , <u>Franca Albertini</u> <sup>2</sup> , <u>Veronica Afonina</u> <sup>1</sup> , <u>Elvina Dilmieva</u> <sup>1</sup> , <u>Dmitry Zakharov</u> <sup>3</sup> , <u>Arseny Irzhak</u> <sup>3</sup> , <u>Vladimir Kalashnikov</u> <sup>1</sup> , <u>Alexander Kamantsev</u> <sup>1,4</sup> , <u>Vladimir Khovailo</u> <sup>3</sup> , <u>Pavel Mazaev</u> <sup>1</sup> , <u>Victor Nizhankovskii</u> <sup>4</sup> , <u>Evgeny Perov</u> <sup>1</sup> , <u>Vladimir Shavrov</u> <sup>1</sup> , <u>Paolo Ranzieri</u> <sup>2</sup> , <u>Simone Fabbri</u> <sup>2</sup> 1: Kotelnikov Institute of Radio Engineering and Electronics of RAS, Russian Federation; 2: IMEM-CNR, Parma, Italy; 3: National University of Science and Technology "MISIS", Moscow, Russia; 4: International Laboratory of High Magnetic Field and Low Temperatures, Wroclaw, Poland
WO22:	<b>Quantities affecting the behavior of vibrational magnetostrictive transducers</b> <u>Mauro Zucca</u> <sup>1</sup> , <u>Oriano Bottauscio</u> <sup>1</sup> , <u>Arash Hadadian</u> <sup>2</sup> 1: Electromagnetics Dept., INRIM, Torino, Italy; 2: Dip. Energia, Politecnico di Torino, Torino, Italy

WO23:	<p><b>Contactless temperature and mechanical stress inspection of Fe-Co-Hf-N/Ti-N multilayer coatings using high frequency sensor signals</b>  <u>Kathrin Krüger</u>, Klaus Seemann, Harald Leiste, Michael Stüber, Sven Ulrich  Karlsruhe Institute of Technology (KIT), Germany</p>
WO24:	<p><b>Scaling Down Impact on a CMOS Hall Plate Device</b>  <u>Pavel Kejik</u>, Pierre-Francois Bourdelle, Pierre-André Farine  Institute of Microengineering, EPFL, Switzerland</p>
WO25:	<p><b>Nondestructive characterization of flake graphite cast iron by Magnetic Adaptive Testing</b>  <u>Gabor Vertesy</u><sup>1</sup>, Tetsuya Uchimoto<sup>2</sup>, Toshiyuki Takagi<sup>2</sup>, Ivan Tomas<sup>3</sup>  1: Institute of Technical Physics and Materials Science, Budapest, Hungary; 2: Institute of Fluid Science, Tohoku University, Sendai, Japan; 3: Institute of Physics, Academy of Sciences of the Czech Republic, Praha, Czech Republic</p>
WO26:	<p><b>Dynamical behavior of magnetic Barkhausen noise</b>  <u>Oleksandr Stupakov</u>  Institute of Physics ASCR, Czech Republic</p>
WO27:	<p><b>Sensitivity and Noise Evaluation of a Bonded Magneto(elasto)Electric Laminate Based on In-plane Magneto-capacity Measurements for Quasi-static Magnetic Field Sensing</b>  <u>Xin Zhuang</u><sup>1</sup>, Marc Lam Chok Sing<sup>1</sup>, Christophe Dolabdjian<sup>1</sup>, Peter Finkel<sup>2,3</sup>, Jiefang Li<sup>4</sup>, Dwight Viehland<sup>4</sup>  1: Normandie Univ, France ; UCBN, GREYC, F-14032 Caen, France; CNRS, UMR 6072, F-14032 Caen, France; 2: Naval Undersea Warfare Center, Newport, Rhode Island 02841; 3: U.S. Naval Research Laboratory, Washington, D.C. 20375; 4: Materials Science and Engineering, Virginia Tech., Blacksburg, VA 24061, USA</p>
12:45pm - 2:00pm	<b>Lunch/Buffer</b>
2:00pm - 3:30pm	<p><b>Magnetic Recording, Imaging &amp; Interdisciplinary Topics</b>  Chair: <b>Anne Bernard-Mantel</b>, CNRS/Institut Néel; <a href="mailto:anne.bernard-mantel@neel.cnrs.fr">anne.bernard-mantel@neel.cnrs.fr</a></p>
WO30:	<p><b>Single-molecule manipulation of nucleic acids by magnetic and optical fields</b> <i>Invited</i>  <u>J. Ricardo Arias-Gonzalez</u>  IMDEA Nanociencia, Madrid (Spain)</p>
WO31:	<p><b>Automated Set-Up for Magnetic Induction Tomography</b>  <u>Brendan John Darrer</u><sup>1</sup>, Joseph Conrad Watson<sup>2</sup>, Paul Bartlett<sup>1</sup>, Ferruccio Renzoni<sup>1</sup>  1: University College London, United Kingdom; 2: Atomic Weapons Establishment, Reading, United Kingdom</p>
WO32:	<p><b>Experimental and Analytical Investigation of Magnetic Imaging using Magnetic Nanoparticles.</b>  <u>Kamel Fodil</u>, Matthieu Denoual, Christophe Dolabdjian  GREYC électronique, France</p>
WO33:	<p><b>Sensing Physical Fluid Properties in Microcavities Utilizing Diamagnetic Levitation</b>  <u>Wolfgang Hilber</u>, Stefan Clara, Bernhard Jakoby  Johannes Kepler University Linz, Austria</p>
WO34:	<p><b>Magneto-resistive cytometer for food and water contamination assessment</b>  <u>Ana Carolina Fernandes</u><sup>1</sup>, Filipe Arroyo Cardoso<sup>1</sup>, Sofia A.M. Martins<sup>2</sup>, Verónica C. Martins<sup>3</sup>, Ana Vila<sup>3</sup>, Susana Cardoso<sup>1</sup>, Paulo Jorge Peixeiro de Freitas<sup>1,3</sup>  1: Instituto de Engenharia de Sistemas e Computadores – Microsistemas e Nanotecnologias (INESC-MN), Rua Alves Redol 9, 1000-029 Lisbon, Portugal; 2: BioEngineering Research Group (BERG), Instituto Superior Técnico, Universidade de Lisboa, Av. Rovisco Pais, 1049-001 Lisbon, Portugal; 3: International Iberian Nanotechnology Laboratory (INL), Av. Mestre José Veiga 4715-330 Braga, Portugal</p>

3:30pm - 4:00pm	<b>Coffee Break</b>
4:00pm - 5:30pm	<p><b>Poster Session</b> Location: <b>Poster Session Hall</b></p> <hr/> <p><b>M–H Curve Study of Magnetic Porous Clay Heterostructure</b>  <b>Natthaphon Bunnak</b><sup>1</sup>, Sarute Ummartyotin<sup>1</sup>, Pitak Laoratanakul<sup>2</sup>, Amar Bhalla<sup>3</sup>, Hathaikarn Manuspiya<sup>1</sup>  1: The Petroleum and Petrochemical College, Chulalongkorn University, Bangkok, 10330, Thailand; 2: National Metal and Materials Technology Center, Pathumthani, 12120, Thailand; 3: Department of Electrical and Computer Engineering, College of Engineering, The University of Texas at San Antonio, Texas, 78249, USA</p> <hr/> <p><b>Pulsed eddy current imaging of complex metallic structures</b>  <b>Pierre-Yves Joubert</b><sup>1</sup>, Yohan Le Diraison<sup>2</sup>, Eric Vourc'h<sup>2</sup>  1: Universite Paris Sud, France; 2: SATIE, CNRS</p> <hr/> <p><b>Setup for generating an AC magnetic field from 3 kHz up to 100 kHz</b>  <b>Michal Ulvr</b>  Czech Metrology Institute, Czech Republic</p> <hr/> <p><b>Micromagnetic simulation of thin obliquely deposited films</b>  <b>Platon Solovev</b><sup>1</sup>, Andrey Izotov<sup>1</sup>, Boris Belyaev<sup>1,2</sup>  1: Siberian Federal University, Krasnoyarsk, Russian Federation; 2: Kirensky Institute of Physics, SB RAS, Krasnoyarsk, Russia</p> <hr/> <p><b>Bolometric Detection of Ferromagnetic Resonance in Amorphous Microwires</b>  <b>Ludek Kraus</b>  Institute of Physics, Academy of Sciences of the Czech Republic, Czech Republic</p> <hr/> <p><b>Mechanical stress dependence of the switching field in amorphous microwires</b>  <b>Rudolf Sabol</b><sup>1</sup>, Peter Klein<sup>1</sup>, Marian Rovnak<sup>2</sup>, Rastislav Varga<sup>1</sup>  1: Institute of Physics, Fac.Sci.,UPJS, Kosice, Slovak Republic; 2: 2Faculty of Civil Engineering, TU Kosice, Kosice, Slovak Republic</p> <hr/> <p><b>Temperature dependence of the switching field in amorphous bistable microwires</b>  Peter Klein<sup>1</sup>, <b>Rastislav Varga</b><sup>1</sup>, Rhimou El Kammouni<sup>2</sup>, Manuel Vazquez<sup>2</sup>  1: Institute of Physics, Fac.Sci.,UPJS, Kosice, Slovak Republic, Slovak Republic; 2: Instituto de Ciencia de Materiales de Madrid, CSIC, 28049 Madrid, Spain</p> <hr/> <p><b>Magnetic recording – maximum density and switching field distribution</b>  <b>Evgeny Z. Meilikhov</b>, Rimma M. Farzetdinova  Kurchatov Institute, Russian Federation</p> <hr/> <p><b>Structural and magnetic characterization of Fe<sub>43</sub>Mn<sub>34</sub>Al<sub>15</sub>Ni<sub>7,5</sub> pseudo-Heusler alloy</b>  <b>Jakub Miño</b><sup>1</sup>, Jozef Kravcak<sup>2</sup>, Jozef Kovac<sup>3</sup>, Rastislav Varga<sup>1</sup>  1: Inst. Phys., Fac. Sci., UPJS., Slovak Republic; 2: Dpt. of Physics, FEI, TUKE, Park Komenskeho 2, Kosice, Slovakia; 3: SAS, Inst Expt Phys, Kosice, Slovakia</p> <hr/> <p><b>Temperature-dependent ferromagnetic resonance frequency shift and damping behaviour of an</b>  <b>Klaus Seemann</b>, Kathrin Krüger, Harald Leiste  Karlsruhe Institute of Technology KIT (Campus North), Germany</p>

WP11:	<p><b>SOI magnetosensor with double-gates FET primary transducers</b>  <u>Victor Naumovich Mordkovich</u><sup>1</sup>, Mikhail Lvovich Baranochnikov<sup>1</sup>, Alexey Vladimirovich Leonov<sup>1</sup>, Dmitriy Mikhailovich Pazhin<sup>1</sup>, Mikhail Petrovich Karpushin<sup>2</sup>  1: Institute of microelectronics technology and high purity materials RAS, Russian Federation; 2: Ikar impulse ltd, Russia</p>
WP12:	<p><b>Vibration energy harvesting device for a wireless sensors monitoring system</b>  Horia Chiriac<sup>1</sup>, <u>Mihai Tibu</u><sup>1</sup>, Florin Tufescu<sup>2</sup>, Ivan Skorvanek<sup>3</sup>, Tibor Adrian Ovari<sup>1</sup>, Nicoleta Lupu<sup>1</sup>  1: National Institute of Research and Development for Technical Physics, Romania; 2: Gradient Ltd. Iasi, Romania; 3: Institute of Experimental Physics, Slovak Academy of Sciences, Košice, Slovak Republic</p>
WP13:	<p><b>Structural and Magnetic Properties of “Thick” Fe<sub>31</sub>Co<sub>34</sub>Ni<sub>10</sub>(SiB)<sub>25</sub> Microwires Produced by the modernized Ulitovsky-Taylor Method</b>  <u>Elena Shalygina</u><sup>1</sup>, Aleksander Shalygin<sup>1</sup>, Anna Kharlamova<sup>1</sup>, Vaycheslav Molokanov<sup>2</sup>, Tat'ayna Chueva<sup>2</sup>, Hadejda Umnova<sup>2</sup>, Pavel Umnov<sup>2</sup>  1: Lomonosov Moscow State University, Russian Federation, 119991, Moscow; 2: Baikov Institute of Metallurgy and Materials Science, Russian Federation, 119991, Moscow</p>
WP14:	<p><b>Evaluation of a high sensitivity radiofrequency inductive probe for the non-contact sensing of dielectric properties of organic medium</b>  <u>Gayathri Masilamany</u><sup>1</sup>, Pierre-Yves Joubert<sup>1</sup>, Stéphane Serfaty<sup>2</sup>, Pascal Griesmar<sup>2</sup>, Bastien Roucariès<sup>2</sup>, Yohan Le Diraison<sup>2</sup>  1: University of Paris Sud, France; 2: University of Cergy-Pontoise, France</p>
WP15:	<p><b>Low fields regime domain wall propagation</b>  <u>Juraj Kostyk</u><sup>1</sup>, Rastislav Varga<sup>1</sup>, Manuel Vazquez<sup>2</sup>  1: Institute of Physics, Faculty of Sciences, Slovak Republic; 2: Instituto de Ciencia de Materiales, CSIC 28049 Madrid, Spain</p>
WP16:	<p><b>Nanoscale Domain Wall Dynamics in Magnetic Films</b>  Mikhail Gerasimov<sup>1</sup>, <u>Mikhail Logunov</u><sup>1</sup>, Sergey Nikitov<sup>2</sup>, Alexandr Spirin<sup>1</sup>  1: Ogarev Mordovia State University, Russian Federation; 2: Kotelnikov Institute of Radio Engineering and Electronics, Russian Federation</p>
WP17:	<p><b>Semi-analytical Model and Genetic Algorithm Method Applied for Optimization of an Axisymmetric Linear Electromagnetic Valve Actuator</b>  Zoubida Belli<sup>1</sup>, Tarik Hacib<sup>2</sup>, Mohamed Rachid Mekideche<sup>3</sup>, <u>Nassira Ferkha</u><sup>1</sup>  1: Jijel University, Algeria; 2: Jijel University, Algeria; 3: Jijel University, Algeria</p>
WP18:	<p><b>Soft Computing for Shape Optimization of Linear Actuator</b>  Mohdeb Naamane, <u>Hacib Tarik</u>  University of Jijel, Algeria</p>
WP19:	<p><b>Materials Characterization using Temperature-Stabilized Single-Coil Eddy Current Analysis</b>  <u>Sargon Youssef</u>, Klaus Szielasko, Mohammed Elzatma, Hans-Georg Herrmann  Fraunhofer-Institut IZFP, Germany</p>
WP20:	<p><b>Structure of magnetic domain wall in cylindrical microwire</b>  <u>Andrzej Janutka</u><sup>1</sup>, Przemyslaw Gawronski<sup>2</sup>  1: Wroclaw University of Technology, Wroclaw, Poland; 2: AGH University of Science and Technology, Cracow, Poland</p>



WP21:	<p><b>Criteria to estimate the defect's depth by eddy currents using an asymmetrical GMR- coil configuration</b></p> <p>Eduardo Ramírez<sup>1</sup>, José Hiram Espina<sup>1</sup>, José Alberto Pérez<sup>1</sup>, Francisco Caleyó<sup>2</sup>, José Manuel Hallen<sup>2</sup>  1: LENDE, ESIME-SEPI Electrónica, Instituto Politécnico Nacional, México; 2: DIM, ESIQIE, Instituto Politécnico Nacional, México</p>
WP22:	<p><b>Evolution of the eigenmodes spectrum of elliptical dots on reducing the lateral size from the micrometric to the nanometric range</b></p> <p>G. Carlotti<sup>1</sup>, g. Gubbiotti<sup>2</sup>, m. Madami<sup>1</sup>, s. Tacchi<sup>2</sup>, f. Hartmann<sup>3</sup>, m. Hemmerling<sup>3</sup>, m. Kamp<sup>3</sup>, l. Worschech<sup>3</sup>  1: Dipartimento di Fisica, University of Perugia; 2: Istituto Officina dei Materiali del CNR (CNR-IOM); 3: Technische Physik, Physikalisches Institut, Universität Würzburg</p>
WP23:	<p><b>Fundamental limits in the energy dissipation of nanomagnetic binary switches: a micromagnetic study</b></p> <p>Marco Madami, Luca Gammaitoni, Davide Chiuchiu', <u>Giovanni Carlotti</u>  University of Perugia, Italy</p>
WP24:	<p><b>Three-axial MFL inspection in pipelines for defect imaging using a dynamic inversion procedure</b></p> <p><u>Junjie Chen</u>, Songling Huang, Wei Zhao  Tsinghua University, China, People's Republic of</p>
WP25:	<p><b>A novel post-processing method for correction of deformed magnetic barkhausen noise signals</b></p> <p>Pedro Martínez Ortiz<sup>1</sup>, <u>José H. Espina Hernández</u><sup>1</sup>, José A. Pérez Benítez<sup>1</sup>, Francisco Caleyó Cereijo<sup>2</sup>, José M. Hallen López<sup>2</sup>  1: Instituto Politécnico Nacional, Lende Esime-Sepi, México; 2: Instituto Politécnico Nacional, Dim-Esiqie, México</p>
WP26:	<p><b>Magnetization Dynamics and Power Loss Calculation in NO Soft Magnetic Steel Sheets under Arbitrary Excitation</b></p> <p><u>Martin Petrun</u><sup>1</sup>, Simon Steentjes<sup>2</sup>, Kay Hameyer<sup>2</sup>, Drago Dolinar<sup>1</sup>  1: University of Maribor, FERI, Slovenia; 2: RWTH Aachen University, Institute of Electrical Machines, Germany</p>
WP27:	<p><b>Localised Angular Flux Directions on Amorphous Bent Core 2605SA1</b></p> <p>Naim Derebasi, Osman Caylak, <u>Taylan Gunes</u>  Uludag University, Department of Physics Turkey</p>
WP28:	<p><b>Effect of Hole Geometry on Flux Density Distribution in Non-Oriented Electrical Steels</b></p> <p><u>Cagdas Erdonmez</u>, Naim Derebasi, Taylan Gunes  Uludag University, Department of Physics Turkey</p>
WP29:	<p><b>Localised Flux Density Distribution around a Hole in Non-Oriented Electrical Steels</b></p> <p>Taylan Gunes, Naim Derebasi, <u>Cagdas Erdonmez</u>  Uludag University, Department of Physics, Turkey</p>
WP30:	<p><b>Analytical calculation of Permanent Magnet systems: internal energy and coil interaction</b></p> <p>Hicham Allag<sup>1,2</sup>, <u>Jean-Paul Yonnet</u><sup>1</sup>, Christian Chillet<sup>1</sup>  1: G2e Lab - Cnrs / Inp Grenoble, Université Grenoble Alpes, France; 2: Jijel University, Jijel, Algeria</p>

WP31:	<p><b>The impact of iron core model on dynamic behaviour of three-phase power transformer dynamic model</b>  <u>Klemen Deželak</u><sup>1</sup>, Martin Petrun<sup>1</sup>, Miran Rošer<sup>2</sup>, Drago Dolinar<sup>1</sup>, Gorazd Štumberger<sup>1</sup>  1: University of Maribor, Slovenia; 2: Elektro Celje, Slovenia</p>
WP32:	<p><b>Improving efficiency of a PMSM drive</b>  Željko Plantić<sup>1</sup>, Drago Dolinar<sup>1</sup>, <u>Klemen Deželak</u><sup>1</sup>, Tine Marčič<sup>2</sup>, Bojan Štumberger<sup>1</sup>, Gorazd Štumberger<sup>1</sup>  1: University of Maribor, Slovenia; 2: TECES, Slovenia</p>
WP33:	<p><b>Planar Magnetostrictive MEMS Actuator</b>  Harald Steiner<sup>1</sup>, Michael Stifter<sup>1</sup>, Wilfried Hortschitz<sup>1</sup>, Franz Keplinger<sup>2</sup>, Thilo Sauter<sup>1</sup>  1: Danube University Krems/ CISS, Austria; 2: Vienna University of Technology/ ISAS, Austria</p>
WP34:	<p><b>Analysis of the magnetic field in the space focused on diagnostic inference.</b>  <u>Przemyslaw Szulim</u><sup>2</sup>, Szymon Gontarz<sup>1</sup>, Stanislaw Radkowski<sup>3</sup>  1: Institute of Automotive Engineering, Warsaw University of Technology, Poland; 2: Institute of Automotive Engineering, Warsaw University of Technology, Poland; 3: Institute of Automotive Engineering, Warsaw University of Technology, Poland</p>
WP35:	<p><b>Application of mechanical Barkhausen noise for internal stress evaluation in ferromagnetic steels</b>  <u>Boleslaw Augustyniak</u>, Pawel Maciakowski, Marek Chmielewski, Leszek Piotrowski, Maria Gazda, Jakub Karczewski  Gdansk University of Technology, Poland</p>
WP36:	<p><b>Analytical Solutions of Eddy Currents on Simplified Geometries</b>  <u>B. Filipitsch</u><sup>1</sup>, A. Satz<sup>2</sup>, M. Ortner<sup>3</sup>  <sup>1,3</sup><u>CTR Carinthian Tech Research AG, Villach, Austria</u>, <sup>2</sup><u>Infineon, Villach, Austria</u></p>
WP37:	<p><b>Theoretical and Experimental Analysis of Spin Waves in Laterally Confined Magnetic Thin Film</b>  Federica Celegato<sup>1</sup>, Marco Coisson<sup>1</sup>, Omar Usman Khan<sup>3</sup>, Michaela Kuepferling<sup>2</sup>, Alessandro Magni<sup>1</sup>, Chiara Portesi<sup>1</sup>, <u>Carlo Ragusa</u><sup>2</sup>, Arbab Rahim<sup>2</sup>  1: Electromagnetics Division, INRIM, Torino, Italy; 2: Energy Department, Politecnico di Torino, Torino, Italy; 3: Department of Computer Science, NUCES, Peshawar, Pakistan</p>
WP38:	<p><b>Non destructive evaluation of aged multilayered semiconductor power module using the eddy current method</b>  <u>Tien Anh Nguyen</u><sup>1</sup>, Pierre-Yves Joubert<sup>2</sup>, Stéphane Lefebvre<sup>1</sup>, Serge Bontemps<sup>3</sup>  1: SATIE laboratory, Ecole Normale Supérieure de Cachan, France; 2: IEF laboratory, University of Paris Sud, France; 3: Microsemi Power Modules Products, 26 rue de Campilleau, 33520 Bruges, France</p>
WP39:	<p><b>Generalized two-dimensional Energetic Model of Ferromagnetic Hysteresis for Thin Film Material</b>  <u>Peter Haumer</u>, Paul L Fulmek  Vienna University of Technology, Austria</p>
WP40:	<p><b>Modelling and simulation of a prototype brushless and slotless permanent magnet dc linear stepping motor employing a flat-armature winding configuration</b>  <u>Adel Ismael</u>  Cardiff university, United Kingdom</p>
WP41:	<p><b>Magnetic circuit of high-voltage 10 kHz transformer</b>  Radek Procházka, Jan Hlavacek, <u>Karel Draxler</u>  Czech Technical University in Prague, Faculty of Electrical Engineering, Czech Republic</p>

WP42:	<p><b>Slowly Varying Defects Reconstruction from MFL Signals Using BP Neural Network Based on Bayesian Algorithm</b>  <u>Xinmeng Liu</u>, Songling Huang, Wei Zhao, Shen Wang  Tsinghua University, China, People's Republic of</p>
WP43:	<p><b>Influence of flexible substrates' thickness on the performance of ink-jet printed CPW inductors</b>  Aleksandar Menicanin<sup>1</sup>, Nikola Ivanisevic<sup>2</sup>, Ljiljana Zivanov<sup>2</sup>, Mirjana Damnjanovic<sup>2</sup>, <u>Andrea Maric</u><sup>2</sup>  1: Institute for Multidisciplinary Research, University of Belgrade, Serbia; 2: Faculty of Technical Sciences, University of Novi Sad, Serbia</p>
WP44:	<p><b>An Accurate Coupling Analysis of an In-wheel Motor for Medium Electrical Vehicle</b>  <u>Li Junlong</u>, Xu Yongxiang, Zou Jibin  Harbin Institute of Technology</p>
WP45:	<p><b>In-wheel Permanent Magnet Machines with Fractional-Slot concentrated-Windings for Electrical Vehicles</b>  <u>Li Junlong</u>, Xu Yongxiang, Zou Jibin  Harbin Institute of Technology, China, People's Republic of</p>
WP46:	<p><b>Correction of the soft-iron error in magnetic tracking</b>  <u>Ales Zikmund</u>, Pavel Ripka  Czech technical University in Prague, Czech Republic</p>
WP47:	<p><b>Design and Analysis of a Novel Slotted Limited-Angle Torque Motor for Servo Positioning System</b>  Zou Jibin, <u>Yu Guodong</u>  China, China, People's Republic of</p>
WP48:	<p><b>Magneto-structural properties of Fe-Pd-X (X= Mn,Ga,Ti) ribbons</b>  <u>Mihaela Sofronie</u>, Alina Daniela Crisan, Felicia Tolea, Monica Enculescu, Mihaela Valeanu  National Institute of Materials Physics, Romania</p>
WP49:	<p><b>Simulation and analysis of ferroresonance in power circuits with a nanocrystalline magnetic materials</b>  Jan Kyncl, Radek Procházka, Libor Straka, <u>Lubomir Musalek</u>, Adithya Hariram  Czech Technica Univerzity in Prague, Czech Republic</p>
WP50:	<p><b>Optimization of a Multi-Dimensional FFT Library for Accelerating Magnetostatic Field Calculations</b>  Omar Khan<sup>1,2</sup>, Bilal Jan<sup>3</sup>, <u>Carlo Ragusa</u><sup>2</sup>, Arbab Rahim<sup>2</sup>, Fiaz Khan<sup>4</sup>, Bartolomeo Montrucchio<sup>3</sup>  1: Department of Computer Science, NUCES, Peshawar, Pakistan; 2: Dipartimento Energia, Politecnico di Torino, Torino, Italy; 3: Dipartimento di Automatica e Informatica, Politecnico di Torino, Torino, Italy; 4: Department of Computer Science, COMSATS, Abbottabad, Pakistan</p>
WP51:	<p><b>Disturbances in low magnetic field caused by magnetically contaminated plastics</b>  <u>Kazimierz Jakubiuk</u>, Miroslaw Woloszyn  Gdansk Univrersity of Technology, Poland</p>
WP52:	<p><b>Optimal Design of Cogging Torque Reduction on Interior Permanent-Magnet Synchronous Motor in Electric Vehicle</b>  <u>Young Kyoum Kim</u>, Jeong-Jong Lee, Se-Hyun Rhyu, In-Soung Jung  KETI, Korea, Republic of (South Korea)</p>

WP53:	<p><b>Correlation of Magnetic Properties and Residual Stress Distribution Monitored by X-ray &amp; Neutron Diffraction in Welded AISI 1008 Steel Sheets</b>  <u>Polyxeni Vourna</u><sup>1</sup>, Charles Hervoche<sup>2</sup>, Miroslav Vrana<sup>2</sup>, Aphrodite Ktena<sup>3</sup>, Evangelos Hristoforou<sup>1</sup>  1: National technical university of Athens, Greece; 2: Nuclear Physics Institute, ONF, CZ-25068 Rez near Prague, Czech Republic; 3: Technological Educational Institute of Sterea Ellada, Greece</p>
WP54:	<p><b>Compensation of heading error of a differential magnetometric system</b>  <u>Kazimierz Jakubiuk</u>, Mirosław Wołoszyn  Gdansk University of Technology, Poland</p>
WP55:	<p><b>Non-destructive Evaluation of Small Defects Using a Combination between 3D FEM and Multi-output SVM</b>  Mohamed Chelabi<sup>1</sup>, <u>Tarik Hacib</u><sup>1</sup>, Hulusi Acikgoz<sup>2</sup>, Yann Le Bihan<sup>3</sup>  1: Jijel University, Algeria; 2: KTO Karatay University; 3: Supelec, CNRS, Paris 6 University</p>
WP56:	<p><b>Metal detector for visualization of concealed construction structures</b>  <u>Jan Vyhnánek</u><sup>1</sup>, Jan Včelák<sup>1</sup>, Pavel Mlejnek<sup>1</sup>, Aleš Zikmund<sup>1</sup>, Michal Janošek<sup>2</sup>  1: UCEEB CTU, Třinecká 1024, 273 43 Buštěhrad, Czech Republic; 2: Czech Technical University in Prague, Faculty of Electrical Engineering, Dept. of Measurement, Technická 2, 166 27 Prague, Czech Republic</p>
WP57:	<p><b>Effect of thermal cycling on surface relief and domain structure of Ni-Mn based shape memory alloys</b>  <u>Rostislav Grechishkin</u><sup>1</sup>, Svetlana Ilyashenko<sup>1</sup>, Oleg Gasanov<sup>1</sup>, Elvina Kalimullina<sup>2</sup>, Victor Koledov<sup>2</sup>  1: Tver State University, Russian Federation; 2: Kotel'nikov Institute of Radio Engineering and Electronics of RAS, Russian</p>
WP58:	<p><b>Interest of the segmentation of the magnets in the vibrations reduction in PMSM: Modeling and experimentation</b>  <u>Nassira Ferkha</u><sup>1</sup>, Abdesslem Djerdir<sup>2</sup>, Tarik Hacib<sup>1</sup>, Mohamed Rachid Mekideche<sup>1</sup>  1: Universite of Jijel Algeria, Algeria; 2: Université de Technologie de Belfort-Montbéliard UTBM</p>
WP59:	<p><b>Magnetic tunnel junctions with wedged MgO barrier: investigations and modeling</b>  Ambra Caprile<sup>1</sup>, Alessandra Manzin<sup>1</sup>, Massimo Pasquale<sup>1</sup>, Hans W. Schumacher<sup>2</sup>, Niklas Liebing<sup>2</sup>, <u>Sybille Sievers</u><sup>2</sup>, Santiago Serrano-Guisan<sup>3</sup>  1: INRIM, Italy; 2: Physikalisch-Technische Bundesanstalt, Braunschweig, Germany; 3: INL, Braga, Portugal</p>
WP60:	<p><b>Investigation method for the stresses dependence of magnetic characteristics of the L17HMF steel casting</b>  <u>Dorota Jackiewicz</u>, Roman Szewczyk, Adam Bieńkowski, Maciej Kachmiar  Warsaw University of Technology, Poland</p>
WP61:	<p><b>Eddy current tomograph for nondestructive testing</b>  <u>Jacek Salach</u>  Warsaw University of Technology, Poland</p>
WP62:	<p><b>Novel Electromagnetic MEMS Actuator for Valveless Micropump</b>  <u>Ahmed Cheriet</u><sup>1</sup>, Mouloud Feliachi<sup>2</sup>, Riad Benghalia<sup>1</sup>  1: LGEB Lab, Biskra University, Algeria; 2: IREENA of Saint-Nazaire, Nantes University, France</p>

WP63:	<p><b>Evaluation of BH-Loops from Inductive Measurements by Numerical Simulation</b>  <u>Paul Fulmek</u>, Peter Haumer  Institute of Sensor and Actuator Systems, Vienna University of Technology, Austria</p>
WP64:	<p><b>Preliminary study of magnonic structures as sensitive magnetic field sensors</b>  <u>Philippe Talbot</u><sup>1</sup>, Jasek Gieraltowski<sup>2</sup>  1: Lab-STICC UMR CNRS 6285, France; 2: LDO-IUEM UMR CNRS 6538, France</p>
WP65:	<p><b>2D and 3D modeling of the extraordinary magnetoresistance sensor construction in planar configuration</b>  <u>Semir El-Ahmar</u>, A. A. Pozniak  Poznan University of Technology, Poland</p>
WP66:	<p><b>Effect of Low Temperature Annealing upon Magnetic Properties of FeMoCuB Metallic Glass</b>  <u>Mariusz Hasiak</u>  Wroclaw University of Technology, Poland</p>
WP67:	<p><b>Synthesis of water soluble biocompatible fe<sub>3</sub>o<sub>4</sub> nanoparticles as potential MRI contrast agent</b>  <u>Sam F. Y. Li</u>  National University of Singapore, Singapore</p>
WP68:	<p><b>Magnetostriction-Based Omni-Directional Guided Wave Transducer for Tomography of Steel Plate Defects</b>  <u>Zheng Wei</u>, Songling Huang, Shen Wang, Wei Zhao  State Key Lab of Power Systems, Department of Electrical Engineering, Tsinghua University, Beijing, China, China, People's Republic of</p>
5:30pm - 6:00pm	<p><b>Closing Session</b>  Location: <b>E17</b>  Chair: <b>Ioanna Giouroudi</b>, Vienna University of Technology; <a href="mailto:ioanna.giouroudi@tuwien.ac.at">ioanna.giouroudi@tuwien.ac.at</a></p>

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# Influence of flexible substrates' thickness on the performance of ink-jet printed CPW inductors

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In this paper, influence of flexible substrates' thickness on coplanar waveguide (CPW) inductors for high frequency applications is presented.

The designed multilayer CPW inductors for high applications are two-port meanders with one turn and outer dimension 1.8 mm × 2.0 mm. The line paths in the presented structures have 200 μm widths. Around the CPW inductors is a ring-shaped ground plane, which is a replacement for a background metallization. In that manner, the structures are manufactured in a low-cost one-side fabrication process.

CPW inductors was made in ink-jet printing technology on flexible substrate with nanoparticle ink which contain 20 wt% of silver. For the fabrication process is used DMP 3000 ink-jet printer. The goal of this work was to examine the influence of substrate thickness on inductor's performance. Because of that, have are fabricated CPW inductors on four substrates with 25, 50, 75 and 125 μm thicknesses.

The design, modeling and simulation of CPW inductors were obtained using the Microwave Office (MWO), an electromagnetic (EM) simulator provided by AWR Corp.

The printed structures were measured using the vector network analyser and RF probe station. The measurement results were obtained in the frequency range from 1 to 35 GHz.

Increasing substrate thickness leads to greater values of quality factor of CPW inductors. Also, we get higher self-resonant frequency of proposed inductors. Changing substrates' thicknesses, we can change the performance of CPW inductor.

## References

[1] A. B. Menicanin, L. D. Zivanov, M. S. Damnjanovic, A. M. Maric, "Low-cost CPW meander inductors utilizing ink-jet printing on flexible substrate for high frequency applications", *IEEE Transactions on Electron Device*, Vol. 60 (2013), pp: 827 - 832.

[2] A. B. Menicanin, N. P. Ivanisevic, M. S. Damnjanovic, A. M. Maric, L. D. Zivanov, "Improved performance of high frequency multilayer CPW inductors on flexible substrates", *IEEE International Magnetics Conference, INTERMAG Europe 2014*, Dresden, Germany, May 4 - 8, 2014.

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