

**The 4th International Symposium on  
Advanced Magnetic Materials and Applications (ISAMMA 2017)**  
*10-13 December 2017 – Phu Quoc, Vietnam*

# PROGRAM

## DECEMBER 10, 2017 (SUNDAY)

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| 14:00-17:00 | <b>REGISTRATION</b><br>Venue: <b>Ballroom 3</b>                  |
| 16:00-18:00 | <b>18th AUMS Council Meeting</b><br>Venue: <b>Meeting Room 3</b> |
| 18:00-20:00 | <b>GETTING TOGETHER</b><br>Venue: <b>Poolside</b>                |

## DECEMBER 11, 2017 (MONDAY)

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| 08:00-08:30 | <b>REGISTRATION</b><br>Venue: <b>Ballroom Foyer</b>  |
|             | <b>OPENING and PLENARY</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Nguyen Hoang Luong, Nguyen Hoang Hai, Kyung-Ho Shin</i>  |
| 08:30-09:00 | <b>OPENING: Welcome Remarks and Introduction</b><br><i>Nguyen Hoang Luong</i> , ISAMMA 2017 Organizing Committee Chairman<br>Vietnam National University, Hanoi (VNU), Vietnam                       |
|             | <b>OPENING: Welcome and Introduction of Vietnam Magnetics Society</b><br><i>Nguyen Huu Duc</i> , ISAMMA 2017 General Chairman<br>Vice President of Vietnam National University, Hanoi (VNU), Vietnam |
|             | <b>OPENING: Welcome and Introduction of ISAMMA history</b><br><i>Koki Takanashi</i> , ISAMMA Steering Committee Chairman<br>Tohoku University, Japan   |
| 09:00-09:30 | <b>PL1: Rare earth permanent magnets with ultimate hard magnetic properties</b><br><i>Kazuhiro Hono</i><br>National Institute for Materials Science, Japan   |
| 09:30-10:00 | <b>PL2: Transport and thermodynamic properties of the chiral helimagnet Cr<sub>1/3</sub>NbS<sub>2</sub></b><br><i>David Mandrus</i><br>The University of Tennessee, USA                              |
| 10:00-10:30 | <b>Break @ Ballroom Foyer - Group photo</b>  |
|             | <b>FUNDAMENTAL ASPECTS OF MAGNETIC MATERIALS (FMM)</b>   |
|             | <b>FMM1-Session: FUNDAMENTAL ASPECTS OF MAGNETIC MATERIALS</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Davide Peddis, Chiharu Mitsumata</i>   |

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| 10:30-10:50 | <b>FMM-I1: Magnetic Interaction in nanoparticles systems: Non-Equilibrium Magnetization Dynamics</b><br><i> Davide Peddis</i>   |
| 10:50-11:05 | <b>FMM-O1: Maximum likelihood realization for the image of magnetic domain structures in RMC method with the replica exchange scheme</b><br><i> Chiharu Mitsumata, Maki Tokii, Kanta Ono</i>  |
| 11:05-11:20 | <b>FMM-O2: The Anomalous Hall Effect on Ferromagnetic SrRuO<sub>3</sub> films</b><br><i> S. T. Lin, G. D. Dwivedi, B. Y. Chen, H. Chou, S. J. Sun</i>   |
| 11:20-11:35 | <b>FMM-O3: Soft phonon modes in Ni<sub>2</sub>MnGa and Ni<sub>2</sub>MnAl Heusler alloys</b><br><i> V.D. Buchelnikov, O.N. Miroshkina, A.T. Zayak</i>   |
| 11:35-11:50 | <b>FMM-O4: Finite electric field effect on the magnetism of palladium thin films</b><br><i> Tran Van Quang, Miyoung Kim, Hanchul Kim</i>  |
|             | <b>MAGNETIC MATERIALS FOR APPLICATIONS (MMA)</b>  |
|             | <b>MMA1-Session: MAGNETIC MATERIALS FOR APPLICATIONS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>C. Sangregorio, Takekazu Ishida</i>   |
| 10:30-10:50 | <b>MMA-I1: Tailoring magnetic nanoparticle properties towards applications</b><br><i> A. López-Orteg, M. Albino, G. Bertoni, C. de Julián Fernandez, C. Sangregorio</i>   |
| 10:50-11:10 | <b>MMA-I2: Neutron Radiography for Material Sciences using Superconducting Delay-line Detectors</b><br><i> Takekazu Ishida, Hiroyuki Yamaguchi, Yuya Miki, Yuki Iizawa, Vu The Dang, Hiroaki Shishido, Shigeyuki Miyajima, Kenji M. Kojima, Mutsuo Hidaka, Tomio Koyama, Masahide Harada, Kenichi Oikawa, Takayuki Oku, Kazuhiko Soyama</i> |
| 11:10-11:30 | <b>MMA-I3: Spintronics for neurodegenerative diseases</b><br><i> Sung Bae Lee</i>   |
| 11:30-11:45 | <b>MMA-O1: Modelling, simulating and fabricating of non-invasive magneto-electric current sensor</b><br><i> N.V. Tuan, N. H. Duc, P.A. Tuan, D. T. H. Giang</i>   |
|             | <b>SPINTRONIC MATERIALS AND DEVICES (SMD)</b>   |
|             | <b>SMD1-Session: SPINTRONIC MATERIALS AND DEVICES</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Axel Hoffmann, Te-Ho Wu</i>  |
| 10:30-10:50 | <b>SMD-I1: Topological Quasiparticles: Magnetic Skyrmions</b><br><i> Axel Hoffmann</i>  |
| 10:50-11:10 | <b>SMD-I2: Spin dynamics in antiferromagnets and ferrimagnets</b><br><i> T. Ono</i>   |
| 11:10-11:30 | <b>SMD-I3: Magnetization switching for perpendicular magnetic tunnel junctions driven by spin torque from the Spin Hall Effect</b><br><i> Te-Ho Wu, Ching-Ming Lee, Lin-Xiu Ye, Jong-Ching Wu</i>   |
| 11:30-11:45 | <b>SMD-O1: Spin-orbit torque-ferromagnetic resonance with topological insulators</b><br><i> F. Bonell, M. Goto, S. Miwa, J. F. Sierra, M. V. Costache, Y. Suzuki, S. O. Valenzuela</i>  |

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| 11:45-12:00 | <b>SMD-O2: X-ray magnetic circular dichroism spectroscopy to study the microscopic origin of voltage-induced magnetic anisotropy in ferromagnetic metal/MgO interfaces</b><br><i>M. Suzuki, M. Tsujikawa, T. Nozaki, T. Tsukahara, T. Kawabe, K. Shimose, T. Furuta, R. Miyakaze, K. Yoshikawa, K. Nawaoka, M. Goto, Y. Kotani, K. Toyoki, T. Nakamura, T. Ohkubo, K. Hono, M. Shirai, S. Yuasa, Y. Suzuki, S. Miwa</i> |
|             | <b>HARD/SOFT MAGNETIC MATERIALS AND APPLICATIONS (HSM)</b>  |
|             | <b>HSM1-Session: HARD/SOFT MAGNETIC MATERIALS AND APPLICATIONS</b><br>Venue: <b>Meeting Room 2</b><br>Chair: <i>Masaki Nakano, Victor Koledov</i>   |
| 10:30-10:50 | <b>HSM-I1: PLD-fabricated thick film magnets applied for miniaturized devices</b><br><i>M. Nakano, H. Kondo, D. Shimizu, Y. Yamaguchi, A. Yamashita, T. Yanai, H. Fukunaga</i>  |
| 10:50-11:10 | <b>HSM-I2: State of the Art Review of Solid State Magnetocaloric Refrigeration: Recent Successes, Problems and Prospective Applications</b><br><i>Aliev A.M., Batdalov A.B., Dilmieva E. T. Dan N.H., Von Gratowski S.V., Kamantsev A.P., Koledov V.V., Koshkidko Y.A., Krasnoperov E.P., Suslov D.A., Mashirov A.V., Cwik Y., Rogazkii. K., Shavrov V.G.</i>   |
| 11:10-11:30 | <b>HSM-I3: Phase formation, magnetic properties and giant magnetocaloric effect of Heusler and rapidly quenched alloys</b><br><i>Nguyen Huy Dan, Nguyen Hai Yen, Pham Thi Thanh, Tran Dang Thanh, Nguyen Huu Duc, Nguyen Thi Mai, Vu Manh Quang, Nguyen Hoang Ha, Phan The Long, Kieu Xuan Hau, Dong Hyun Kim, Seong Cho Yu, Alexander Kamantsev, Alexey Mashirov, Victor Koledov</i>                                   |
| 11:30-11:45 | <b>HSM-O1: Hard magnetic Hf<sub>2</sub>Co<sub>11</sub>B alloys synthesized from structurally metastable states</b><br><i>Z. Śniadecki, A. Musiał, Yu. Ivanisenko, A. Kilmametov, D. Wang, J. Kovač, B. Idzikowski</i>   |
| 11:45-12:00 | <b>HSM-O2: Step-like hysteresis behaviour of Co-based amorphous microwires array</b><br><i>Rodionova V., Perov N.</i>   |
| 11:45-13:30 | <b>ISAMMA Steering Committee Meeting @ Meeting Room 3</b>   |
| 12:00-13:30 | <b>Lunch @ Food Exchange Restaurant</b>   |
|             | <b>FUNDAMENTAL ASPECTS OF MAGNETIC MATERIALS (FMM)</b>  |
|             | <b>FMM2-Session: FUNDAMENTAL ASPECTS OF MAGNETIC MATERIALS</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Saurav Giri, Bach Thanh Cong</i>  |
| 13:30-13:50 | <b>FMM-I2: Multiferroic order, magnetoelectric coupling and memory effect in spin-chain compound Sm<sub>2</sub>BaNiO<sub>5</sub></b><br><i>Saurav Giri</i>  |
| 13:50-14:05 | <b>FMM-O5: Thermodynamic properties of Ultra-thin ferroic films</b><br><i>Cong Thanh Bach, Niem Tu Nguyen, Giang Huong Bach, Duy Huy Nguyen, Trang Nguyen Thuy</i>  |
| 14:05-14:20 | <b>FMM-O6: Influence of Ni on magnetic and transport properties of Fe<sub>2</sub>MnAl thin films</b><br><i>Vladimir Khovaylo, Pavel Lapa, Aleksei Bogach, Valeria Rodionova, Val Novosad</i>  |
| 14:20-14:35 | <b>FMM-O7: Spin currents induced from Resonating valence bond states</b><br><i>Shih-Iye Sun, Hsiung Chou</i>  |
| 14:35-14:50 | <b>FMM-O8: Tetrahedral Au<sub>19</sub>Cr: A magnetic superatom</b><br><i>Nguyen Minh Tam, Hung Pham Tan, Ngo Tuan Cuong, Nguyen Thanh Tung</i>  |

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| 14:50-15:05 | <b>FMM-09: Preparation of Er(Co,Cu)<sub>5</sub> Alloy Single-Crystal Thin Films on Cr(211) Underlayer</b><br><i>Mitsuru Ohtake, Ryo Ochiai, Masaaki Futamoto, Fumiyoshi Kirino, Nobuyuki Inaba</i>   |
|             | <b>MAGNETIC MATERIALS FOR APPLICATIONS (MMA)</b>   |
|             | <b>MMA2-Session: MAGNETIC MATERIALS FOR APPLICATIONS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>Ferial Terki, Chang-Hee Cho</i>  |
| 13:30-13:50 | <b>MMA-14: New achievements towards the detection of magnetic signatures of nano/micro objects</b><br><i>Ferial Terki, Tran Quang-Hung, Souleymane Kamara, Vincent Davesne, Lionel Salmon, Azzedine Bousseksou, M. Mahfoud, Sungjoon Kim, CheolGi Kim</i>              |
| 13:50-14:10 | <b>MMA-15: Magneto-resistive biochips for understanding the binding kinetics of biomarkers on a modified surface</b><br><i>Tran Quang Hung, Sri Ramulu Torati, Brajalal Sinha, Kunwoo Kim, Souleymane Kamara, Ferial Terki, CheolGi Kim</i>                            |
| 14:10-14:25 | <b>MMA-02: Magneto-plasmonicnanohole arrays for advanced bio-sensing</b><br><i>Hyeonseo Choi, Chang-Hee Cho</i>  |
| 14:25-14:40 | <b>MMA-03: Detection of the labeled proteins deposited on CoFeB/Ta/CoFeB spin logic device</b><br><i>O. Koplak, O. Haziematova, L. Litvinova, I. Khlusov, R. Morgunov, S. Mangin</i>   |
| 14:40-14:55 | <b>MMA-04: High quality PZT cantilevers for resonant micro-sensor applications</b><br><i>Nguyen T.N., Agnus G., Matzen S., Maroutian T., Lecoer P.</i>   |
|             | <b>SPINTRONIC MATERIALS AND DEVICES (SMD)</b>  |
|             | <b>SMD2-Session: SPINTRONIC MATERIALS AND DEVICES</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Andrei Slavin, Young Keun Kim</i>   |
| 13:30-13:50 | <b>SMD-14: Current-induced dynamics in dielectric antiferromagnets</b><br><i>Andrei Slavin</i>   |
| 13:50-14:10 | <b>SMD-15: Spin-Orbitronic Properties of W/CoFeB Film Structures with Different W Thicknesses and Annealing Temperatures</b><br><i>G.W. Kim, Y.J. Kim, I.H. Cha, A.S. Samardak, B. Pal, A.G. Kolesnikov, A.V. Ognev, A.V. Sadovnikov, S.A. Nikitov, Young Keun Kim</i> |
| 14:10-14:25 | <b>SMD-03: Intrinsic Spin Hall Effect in Ferromagnetic Metal-Heavy Metal Interface</b><br><i>Do Duc Cuong, Soon Cheol Hong, S.H. Rhim</i>  |
| 14:25-14:40 | <b>SMD-04: Various magnetic behaviors at the interfaces between heavy metals and ferromagnets</b><br><i>June-Seo Kim</i>   |
| 14:40-14:55 | <b>SMD-05: Antiferromagnetic layer thickness dependence of magnetoelectric switching condition of perpendicular exchange bias</b><br><i>T. V. A. Nguyen, Y. Shiratsuchi, R. Nakatani</i>   |
|             | <b>HARD/SOFT MAGNETIC MATERIALS AND APPLICATIONS (HSM)</b>   |
|             | <b>HSM2-Session: HARD/SOFT MAGNETIC MATERIALS AND APPLICATIONS</b><br>Venue: <b>Meeting Room 2</b><br>Chair: <i>Wen Cheng Chang, Yasushi Endo</i>  |

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| 13:30-13:50 | <b>HSM-I4: Overview of the ways for enhancing the coercivity of hot deformed Nd<sub>2</sub>Fe<sub>14</sub>B-type magnets</b><br><i>Y.I. Lee, B. S. Liao, Y. J. Wong, H.W. Chang, <u>W.C. Chang</u>, C. C. Shaw</i>  |
| 13:50-14:05 | <b>HSM-O3: First-principles study on the magnetic anisotropy around the grain boundaries of Nd-Fe-B magnets</b><br><i>Yasutomi <u>TATETSU</u>, Shinji TSUNEYUKI, Yoshihiro GOHDA</i>  |
| 14:05-14:20 | <b>HSM-O4: Growth Mechanism of L<sub>10</sub>-ordered Epitaxial Magnetic Thin Film</b><br><i>M. Futamoto, T. Shimizu, M. Nakamura, M. Ohtake</i>  |
| 14:20-14:35 | <b>HSM-O5: Development of New Measurement Technique for Magnetization Dynamics of Magnetic Thin Film</b><br><i>Yasushi Endo, Osamu Mori, Shin Yabukami, Ryoichi Utsumi, Yutaka Shimada</i>  |
| 14:35-14:50 | <b>HSM-O6: Nanostructured soft magnetic multilayers with tunable properties and in-plane anisotropy enhancement for the next generation mobile devices</b><br><i>Claudiu V. Falub, Arnold Ammann, Rachid Hida, Mojmír Meduňa, Martin Bless, Daniel Schneider, Hartmut Rohrmann</i>    |
| 15:00-15:30 | <b>Break @ Ballroom Foyer</b>   |
|             | <b>FUNDAMENTAL ASPECTS OF MAGNETIC MATERIALS (FMM)</b>  |
|             | <b>FMM3-Session: FUNDAMENTAL ASPECTS OF MAGNETIC MATERIALS</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Hung T. Diep, Streltsov S.V.</i>  |
| 15:30-15:50 | <b>FMM-I3: Theory and simulation from helimagnetic films to skyrmion crystals induced by Dzyaloshinskii-Moriya interaction</b><br><i>Hung T. Diep, Sahbi El Hog, Aurélien Bailly-Reyre</i>  |
| 15:50-16:05 | <b>FMM-O10: FeO<sub>2</sub>: a possible novel magnetic constituent of Earth's lower mantle</b><br><i>Streltsov S.V., Khomskii D.I.</i>  |
| 16:05-16:20 | <b>FMM-O11: Study of Phase Separation and Glassy Dynamics in La<sub>5/8-y</sub>Pr<sub>y</sub>Ca<sub>3/8</sub>MnO<sub>3</sub> Thin Films</b><br><i>Dileep K Mishra, Vasant G Sathe, Rajeev Rawat</i>   |
| 16:20-16:35 | <b>FMM-O12: First-Principles Predictions of Magnetic Properties in an Iron-based Metal-Organic-Framework</b><br><i>Hieu C. Dong, Hung M. Le, Yoshiyuki Kawazoe, Duc Nguyen-Manh</i>   |
| 16:35-15:50 | <b>FMM-O13: Surfaces effects and cationic redistribution in ultra-small CoFe<sub>2</sub>O<sub>4</sub> nanoparticles</b><br><i>Alexander Omelyanchik, Maria Salvador, Carla Cannas, Dino Fiorani, Anna Musinu, Montserrat Rivas, Valeria Rodionova, Gaspare Varvaro, Davide Peddis</i> |
| 16:50-17:05 | <b>FMM-O14: Variations of the size and density for antiferromagnetic grains on the enhanced exchange bias of CoO/Co bilayers</b><br><i>Jyh-Shen Tsay, Cheng-Hsun-Tony Chang, Shin-Chen Chang, Yeong-Der Yao</i>   |
|             | <b>MAGNETIC MATERIALS FOR APPLICATIONS (MMA)</b>  |
|             | <b>MMA3-Session: MAGNETIC MATERIALS FOR APPLICATIONS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>Zung-Hang Wei, Laurent Ranno</i>  |
| 15:30-15:50 | <b>MMA-I6: Magnetic Micro/Nano Structures for Biological Detection and Manipulation</b><br><i>C.-H. Li, B.-W. Chen, R. I. Salinas, H.-T. Huang, <u>Z.-H. Wei</u></i>  |

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| 15:50-16:10   | <b>MMA-I7: Skyrmions or Bubbles?</b><br><i>Laurent Ranno, Marine Schott, Alexis Wartelle, Lorenzo Camosi, Anne Bertrand-Mantel</i>   |
| 16:10-16:30   | <b>MMA-I8: Multifunctional graphene oxide-manganese ferrite nanoparticles nanostructures: Synthesis and their potential applications in biomedicine &amp; adsorption</b><br><i>Anh-Tuan Le</i>   |
| 16:30-16:45   | <b>MMA-O5: Ultrafast infrared fiber optical temperature sensor for magnetocaloric effect measurements in pulsed magnetic fields</b><br><i>A. P. Kamantsev, V. V. Koledov, A. V. Mashirov, V. G. Shavrov, N.H. Yen, P.T. Thanh, V.M. Quang, N. H. Dan, A. S. Los, A. Gilewski, I. S. Tereshina, L. N. Butvina</i> |
| <b>SPINTRONIC MATERIALS AND DEVICES (SMD)</b>   |  |
| <b>SMD3-Session: SPINTRONIC MATERIALS AND DEVICES</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Run-Wei Li, Ken-ichi Uchida</i>            |  |
| 15:30-15:50   | <b>SMD-I6: Flexible magnetic materials and devices</b><br><i>Run-Wei Li</i>  |
| 15:50-16:10   | <b>SMD-I7: Thermal imaging of spin-caloritronic phenomena: from fundamentals to applications</b><br><i>Ken-ichi Uchida</i>   |
| 16:10-16:30   | <b>SMD-I8: Surface Plasmon Polaritons for Magnetic Recording</b><br><i>Katsuji Nakagawa</i>  |
| 16:30-16:45   | <b>SMD-O6: The effect of carbon on structural and magnetic properties of Ge<sub>1-x</sub>Mn<sub>x</sub> nanocolumns</b><br><i>Thi Giang LE, Thi Kim Phuong LUONG, Manh An NGUYEN, Viet Bau LE, Vinh LE THANH</i>   |
| 16:45-17:00   | <b>SMD-O7: Spin transport in organic semiconductors</b><br><i>S-J. Wang, A. Wittmann, K. Kang, S. Schott, G. Schweicher, R. Di Pietro, J. Wunderlich, D. Venkateshvaran, M. Cubukcu, H. Sirringhaus</i>  |
| <b>SPIN DYNAMICS AND MICROMAGNETICS (SDM)</b>   |  |
| <b>SDM-Session: SPIN DYNAMICS AND MICROMAGNETICS</b><br>Venue: <b>Meeting Room 2</b><br>Chair: <i>Dong-Hyun Kim, Alexander S. Ovchinnikov</i> |  |
| 15:30-15:50   | <b>SDM-I1: Magnetization dynamics of Co/Pt multilayer films over wide ranges of timescale</b><br><i>Dong-Hyun Kim</i>  |
| 15:50-16:10   | <b>SDM-I2: Current theoretical understanding of helimagnets</b><br><i>Alexander S. Ovchinnikov</i>   |
| 16:10-16:25   | <b>SDM-O1: Ferromagnetic resonance probe for exchange biased Ni/NiO nanoparticles</b><br><i>Ashish Chhaganlal Gandhi, Jauyn Grace Lin</i>  |
| 16:25-16:40   | <b>SDM-O2: Asymmetric non-collinear current-induced domain wall motion in Pt/Co/Pt</b><br><i>Mohamed Ali Nsibi, Jayshankar Nath, Isabelle Joumard, Stéphane Auffret, Ioan Mihai Miron, Gilles Gaudin</i>   |
| 17:00-19:00   | <b>POSTERS @ Ballroom Foyer</b>  |
| 18:00-19:00   | <b>Vietnam Magnetism Society Congress @ Meeting Room 1 + 2</b>   |
| 19:00-21:00   | <b>GALA DINNER @ Ballroom 1 + 2 + 3</b>  |

## DECEMBER 12, 2017 (TUESDAY)

| <b>MAGNETIC NANOSTRUCTURED MATERIALS (MNM)</b>   |  |
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|  | <b>MNM1-Session: MAGNETIC NANOSTRUCTURED MATERIALS</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Witold Skowroński, Jung-Il Hong</i>  |
| 08:30-08:50                                      | <b>MNM-I1: Analysis of stability diagram of perpendicular magnetic tunnel junctions</b><br><i>Witold Skowroński, Maciej Czapkiewicz, Sławomir Ziętek, Jakub Chęciński, Marek Frankowski, Piotr Rzeszut, Jerzy Wrona</i>  |
| 08:50-09:10                                      | <b>MNM-I2: Influence of TiO<sub>2</sub> templates morphology on magnetic characteristics of porous Co/Pt and Co/Pd thin multilayered films</b><br><i>T.N. Anh Nguyen, J. Fedotova, J. Kasiuk, W.-B. Wu, A. Maximenko, J. Przewoźnik, C. Kapusta, O. Kupreeva, S. Lazarouk, T.H. Thuy Trinh, T.H. Trang Nguyen, K. Tung Do, H. Manh Do, D. Lam Vu, J. Åkerman</i> |
| 09:10-09:30                                      | <b>MNM-I3: Direct observations of domain structures in the ferromagnetic and antiferromagnetic mixture-phase films</b><br><i>Min-Seung Jung, Mi-Young Im, Jung-Il Hong</i>   |
| 09:30-09:45                                      | <b>MNM-O1: Estimation of Magnetization Dynamics in Ni-Fe Nanowires by a Broadband Ferromagnetic Resonance Measurement</b><br><i>Masahiro Tomoyama, Yasushi Endo, Takamichi Miyazaki</i>  |
| 09:45-10:00                                      | <b>MNM-O2: Temperature Dependence of Spin-polarized current-induced resistance switching in [(GeTe)<sub>2</sub>/(Sb<sub>2</sub>Te<sub>3</sub>)<sub>1</sub>]<sub>n</sub>superlattices</b><br><i>Do Bang, H. Awano, Y. Saito, J. Tominaga</i>  |
| <b>MAGNETIC MATERIALS FOR APPLICATIONS (MMA)</b> |  |
|  | <b>MMA4-Session: MAGNETIC MATERIALS FOR APPLICATIONS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>Jun-ichiro Kishine, Vu Dinh Lam</i>  |
| 08:30-08:50                                      | <b>MMA-I9: Noninvasive hearth monitoring using a magnetoelectric sensor</b><br><i>D.T. Huong Giang, P.A. Tuan, N.B. Bien, N.V. Tuan, V.N. Thuc, N.H. Duc</i>   |
| 08:50-09:10                                      | <b>MMA-I10: Thermally tunable magnetic metamaterials at THz frequencies</b><br><i>Nguyen Thi Hien, Bui Son Tung, Nguyen Van Khuyen, Nguyen Thanh Tung, Vu Dinh Lam</i>   |
| 09:10-09:30                                      | <b>MMA-I11: Chirality-protected phenomena in magnetism and optics</b><br><i>Jun-ichiro Kishine, Igor Proskurin, Alexander S. Ovchinnikov</i>   |
| 09:30-09:45                                      | <b>MMA-O6: Characteristic Length Analysis of Magnetic Film-type Noise Suppressor Integrated on Transmission Lines for On-chip Crosstalk Evaluation</b><br><i>Jingyan Ma, Sho Muroga, Yasushi Endo, Shuichiro Hashi, Yoshiaki Hayashi, Kazushi Ishiyama</i>   |
| 09:45-10:00                                      | <b>MMA-O7: Annealing Treatment Improved Thermoelectric Properties of Indium and Gallium Dually Doped ZnO Thin Films</b><br><i>Nhat Hong Tran Nguyen, Truong Huu Nguyen, Anh Tuan Thanh Pham, Dung Van Hoang, Nam Hoang Vu, Ngoc Kim Pham, Hanh Kieu Thi Ta, Son Ngoc Dac Luu, Vinh Cao Tran, Thang Bach Phan</i>   |
| <b>SPINTRONIC MATERIALS AND DEVICES (SMD)</b>    |  |
|  | <b>SMD4-Session: SPINTRONIC MATERIALS AND DEVICES</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Johan Åkerman, Hyunsoo Yang</i>   |

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| 08:30-08:50 | <b>SMD-I9: Spin wave, skyrmion, and spin-orbit torque devices</b><br><i>Hyunsoo Yang</i>  |
| 08:50-09:10 | <b>SMD-I10: Mutually Synchronized Spin Torque and Spin Hall Nano-Oscillators</b><br><i>Johan Åkerman</i>  |
| 09:10-09:30 | <b>SMD-I11: Magnetization switching using voltage-controlled magnetic anisotropy</b><br><i>Tatsuya Yamamoto, Yoichi Shiota, Takayuki Nozaki, Takuro Ikeura, Shingo Tamaru, Kay Yakushiji, Hitoshi Kubota, Akio Fukushima, Yoshishige Suzuki, Shinji Yuasa</i> |
| 09:30-09:45 | <b>SMD-O8: Synchronization of spintronics feedback nano oscillator to microwave signal</b><br><i>Hanuman Singh, K. Konishi, Swapnil Bhuktare, Arnab Bose, S. Miwa, A. Fukushima, K. Yakushiji, S. Yuasa, H. Kubota, Y. Suzuki, A. A. Tulapurkar</i>           |
| 09:45-10:00 | <b>SMD-O9: Microwave magnetoresistance in CoFeB/Ta/CoFeB spin logic device</b><br><i>O. Koplak, R. Morgunov, G. L'vova, A. Talantsev, S. Petit-Watlot, X. Devaux, S. Migot, Y. Lu, S. Mangin</i>  |
| 10:00-10:30 | <b>Break @ Ballroom Foyer</b>   |
|             | <b>MAGNETIC NANOSTRUCTURED MATERIALS (MNM)</b>  |
|             | <b>MNM2-Session: MAGNETIC NANOSTRUCTURED MATERIALS</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Kamzin A.S., V. H. Tran</i>   |
| 10:30-10:50 | <b>MNM-I4: Synthesis and Properties of Bi-Phasic and Core-Shell Structure Magnetic Nanoparticles</b><br><i>A.S. Kamzin</i>  |
| 10:50-11:10 | <b>MNM-I5: Physical properties of (graphene/BN)- and (BN/graphene)-encapsulated <math>\alpha</math>-Fe nanoceramics</b><br><i>V. H. Tran, P. Idczak, P. Głuchowski, P. Skokowski</i>  |
| 11:10-11:25 | <b>MNM-O3: Modified Physical Properties in TbFeCo Thin Film/Au Nanoparticle Combined Material</b><br><i>Yukiko Yasukawa, Ryosuke Hara, Haruki Yamane, Masanobu Kobayashi</i>  |
| 11:25-11:40 | <b>MNM-O4: Formation of flower-like structure of Fe<sub>3</sub>O<sub>4</sub> nanoparticles coated with ZnO</b><br><i>Hoang Manh Chung, To Thanh Loan, Nguyen Kim Thanh, Nguyen Phuc Duong</i>   |
| 11:40-11:55 | <b>MNM-O5: Size-induced Griffiths phase-like in ferromagnetic metallic La<sub>0.75</sub>Ca<sub>0.25</sub>MnO<sub>3</sub> nanoparticles</b><br><i>L. T. T. Ngan, N. V. Dang, P. T. Phong, L. V. Bau</i>  |
|             | <b>HARD/SOFT MAGNETIC MATERIALS AND APPLICATIONS (HSM)</b>  |
|             | <b>HSM3-Session: HARD/SOFT MAGNETIC MATERIALS AND APPLICATIONS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>Arcady Zhukov, Ivan Skorvanek</i>   |
| 10:30-10:50 | <b>HSM-I5: Engineering of magnetic properties of Co- and Fe-rich microwires</b><br><i>A. Zhukov, M. Ipatov, A. Talaat, J. M. Blanco, M. Churyukanova, V. Zhukova</i>  |
| 10:50-11:10 | <b>HSM-I6: Rapidly quenched amorphous and nanocrystalline bilayer ribbons with tailorable soft magnetic properties</b><br><i>I. Skorvanek, F. Andrejka, B. Kunca, J. Marcin, P. Svec</i>  |
| 11:10-11:25 | <b>HSM-O7: Solid-state chemistry and physics of M-type-ferrite single crystals</b><br><i>H. Nakamura, T. Waki, Y. Tabata, S. Okazaki, K. Uji, A. Shimoda</i>  |



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| 11:25-11:40   | <b>HSM-08: Compact Magneto-Optical Kerr effect microscope for a combination use with probing apparatus</b><br><i>Yusuke ODAGIRI, Eiji YANAGISAWA, Sakae MEGURO, Shin SAITO</i>   |
| 11:40-11:55   | <b>HSM-09: In situ measurements of magnetocaloric effect in high magnetic fields up to 14 T</b><br><i>V. G. Shavrov, E. T. Dilmieva, A. P. Kamantsev, V. V. Koledov, A. V. Mashirov, J. Cwik, Yu. S. Koshkid'ko, I. S. Tereshina</i>   |
| <b>SPINTRONIC MATERIALS AND DEVICES (SMD)</b>   |  |
| <b>SMD5-Session: SPINTRONIC MATERIALS AND DEVICES</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Phillipe Lecoer, Manh-Huong Phan</i> |  |
| 10:30-10:50   | <b>SMD-I12: Intrinsic Room Temperature Ferromagnetism in Monolayer Transition Metal Dichalcogenides: A New Discovery for van der Waals Spintronics Applications</b><br><i>Manh-Huong Phan</i>  |
| 10:50-11:10   | <b>SMD-I13: Spin-dependant tunnelling in ultrathin Schottky junctions based on <math>\text{La}_{0.66}\text{Sr}_{0.33}\text{MnO}_3</math> / <math>\text{SrTiO}_3</math>:Nb interfaces</b><br><i>G. Kurij, A. Solignac, T. Maroutian, G. Agnus, R. Guerrero, L.E. Calvet, M. Pannetier-Lecoer, <u>Phillipe Lecoer</u></i>        |
| 11:10-11:25   | <b>SMD-O10: Realization of spontaneous spin splitting in the conduction band of n-type ferromagnetic semiconductor (In,Fe)As for spin-dependent band engineering</b><br><i>Le Duc Anh, Pham Nam Hai, Masaaki Tanaka</i>  |
| 11:25-11:40   | <b>SMD-O11: Controlled tilting domain wall propagation due to the interfacial Dzyaloshinskii-Moriya interaction in perpendicularly magnetized junction</b><br><i>J. Kwon, H. K. Hwang, J. I. Hong, C. Y. You</i>   |
| 11:40-11:55   | <b>SMD-O12: Study on Spin Phenomena in Magnetic Nanostructures using X-ray microscopy</b><br><i>Mi-Young Im</i>  |
| 12:00-13:30   | <b>Lunch @ Food Exchange Restaurant</b>  |
| <b>MAGNETIC NANOSTRUCTURED MATERIALS (MNM)</b>  |  |
| <b>MNM3-Session: MAGNETIC NANOSTRUCTURED MATERIALS</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Oscar Iglesias, Nguyen Xuan Phuc</i>    |  |
| 13:30-13:50   | <b>MNM-I6: Surface and interfacial effects in magnetic nanoparticles: from core/shell to hollow and hybrid structures</b><br><i>Oscar Iglesias</i>   |
| 13:50-14:10   | <b>MNM-I7: Magnetic nanoparticles for biomedicine: heating power for various materials and multifunctional performance of <math>\text{Fe}_3\text{O}_4</math>@PLA-PEG/Curnanocarrier</b><br><i>Nguyen Xuan Phuc, Luu H. Nguyen, Phan Q. Thong, Do H. Manh, Pham H. Nam, Ha P. Thu, Pham T. Phong, Phan M. Huong, A. Sridhah</i> |
| 14:10-14:30   | <b>MNM-I8: Spin caloritronics in magnetic nanostructures</b><br><i>M. Mizuguchi, K. Takanashi</i>  |
| 14:30-14:45   | <b>MNM-O6: Rotational hysteresis loss analysis for <math>\text{SiO}_2</math> coated <math>\alpha</math>"-<math>\text{Fe}_{16}\text{N}_2</math> nanoparticles assembly</b><br><i>Masahiro Tobise, Shin Saito</i>  |

| <b>MULTIFUNCTIONAL MAGNETIC MATERIALS (MFM)</b> |   |
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|   | <b>MFM1-Session: MULTIFUNCTIONAL MAGNETIC MATERIALS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>Ekkes Brück, Nguyen Hoang Nam</i>  |
| 13:30-13:50                                     | <b>MFM-I1: Efficient energy-conversion near room-temperature with transition metal based magnetic materials</b><br><i>Ekkes Brück, Niels van Dijk</i>   |
| 13:50-14:10                                     | <b>MFM-I2: Studies and applications of magnetic nanoparticles in bio-medicine</b><br><i>Nguyen Hoang Nam, Nguyen Hoang Hai, Nguyen Hoang Luong</i>  |
| 14:10-14:25                                     | <b>MFM-O1: Metal Hybrid Co-based Nanorods for Biosensing, Hyperthermia and Catalytic Properties</b><br><i>M. Estrader, N. Mille, J. Carrey, B. Chaudret, K. Soulantica</i>  |
| 14:25-14:40                                     | <b>MFM-O2: Magnetocaloric effect by the direct method in high magnetic fields in Ni-Mn-In-Co Heusler alloys with additional heat treatment</b><br><i>Elvina T. Dilmieva, Yurii S. Koshkid'ko, Alexander P. Kamantsev, Victor V. Koledov, Aleksey V. Mashirov, Vladimir G. Shavrov, Mariya V. Lyange, J.Cwik, Lorena Gonzalez-Legarreta, Blanca Hernado Grande</i> |
| <b>SPINTRONIC MATERIALS AND DEVICES (SMD)</b>   |   |
|   | <b>SMD6-Session: SPINTRONIC MATERIALS AND DEVICES</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Chul-Yeol You, G. Reiss</i>  |
| 13:30-13:50                                     | <b>SMD-I14: Spintronics based Neuromorphic Devices</b><br><i>Chun-Yeol You</i>  |
| 13:50-14:05                                     | <b>SMD-O13: Enhancement of spin mixing conductance in NiFe/Pt bilayers</b><br><i>Fenfen Chang, Tao Zhu</i>  |
| 14:05-14:20                                     | <b>SMD-O14: Field-driven domain wall motion in a multiple-Hall bars structure</b><br><i>H.K. Hwang, J. Kwon, K.-S. Lee, J.-I. Hong, C.Y. You</i>  |
| 14:20-14:35                                     | <b>SMD-O15: Thermally driven spintronic effects in magnetic nanostructures</b><br><i>G. Reiss, A. Böhnke, M. Glas, D. Meier, T. Kuschel, Ch. Klewe, H.W.Schumacher, M. Münzenberg</i>   |
| 14:35-14:50                                     | <b>SMD-O16: Thermo-electrical detection of topological protected magnetic textures on the track</b><br><i>M. Cubukcu, P.E. Roy, D. Venkateshvaran, A. Wittmann, S-J. Wang, S. Auffret, L. Vila, H. Siringhaus, J.Wunderlich</i>   |
| 15:00-15:30                                     | <b>Break @ Ballroom Foyer</b>   |
| <b>Symposium TECHNOLOGY TRANSFER (TTR)</b>      |   |
|   | <b>TTR-Symposium: TECHNOLOGY TRANSFER</b><br>Venue: <b>Ballroom 3</b><br>Chair: <i>Kyung-Ho Shin, Dongwha Kum</i>   |
| 15:30-15:50                                     | <b>TTR-I1: Efforts of KIST to cultivate social values as outcomes of R&amp;D</b><br><i>Kyung-Ho Shin</i>  |

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| 15:50-16:10   | <b>TTR-I2: Centennial history and perspective study of the industry-academia collaboration about magnetic materials in Tohoku University</b><br><i>Shigeyoshi Yoshida</i>                                       |
| 16:10-16:30   | <b>TTR-I3: History and perspective study of magnetic nanomaterials in Moscow State University</b><br><i>Nikolai Perov</i>   |
| 16:30-16:50   | <b>TTR-I4: How to pass the valley of death for Vietnam</b><br><i>Dongwha Kum</i>  |
| 16:50-17:10   | <b>TTR-I5: TBC</b><br><i>Shao Xiong Zhou</i>  |
| <b>MULTIFUNCTIONAL MAGNETIC MATERIALS (MFM)</b>   |   |
| <b>MF2-Session: MULTIFUNCTIONAL MAGNETIC MATERIALS</b><br>Venue: <b>Meeting Room 1</b><br>Chair: <i>S. Mercone, Devajyoti Mukherjee</i> |   |
| 15:30-15:50   | <b>MF1-I3: Electric control of the magnetic domains in artificial magneto-electric nanostructure</b><br><i>H. T. T. Nong, A. Garcia-Sanchez, C. Ibrahim, N. T. Lan, S. Mercone</i>                              |
| 15:50-16:10   | <b>MF1-I4: MultiferroicMulticaloric Thin Film Heterostructures</b><br><i>Devajyoti Mukherjee</i>  |
| 16:10-16:25   | <b>MF1-O3: Triplet states existing in the interfaces of graphene and ferromagnets</b><br><i>Shih-Iye Sun</i>  |
| 16:25-16:40   | <b>MF1-O4: Rare-earth based half-Heusler phases as thermoelectric and magnetocaloric materials</b><br><i>Dariusz Kaczorowski</i>  |
| <b>Symposium BIO-INITIATIVE SPINTRONICS (BIS)</b>   |   |
| <b>BIS-Symposium: BIO-INITIATIVE SPINTRONICS</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>CheolGi Kim, Valentine Novosad</i>        |   |
| 15:30-15:50   | <b>BIS-I1: Bio-Spintronics Devices - From molecular diagnosis to single cell analysis -</b><br><i>Byeonghwa Lim, Xinghao Hu, Sri Ramulu Torati, CheolGi Kim</i>   |
| 15:50-16:10   | <b>BIS-I2: Magnetic properties and prospective application of patterned ferromagnetic carriers</b><br><i>Valentine Novosad, Elena A. Rozhkova</i>   |
| 16:10-16:30   | <b>BIS-I3: Inflammation Free, Breathable Nanomesh Electronics</b><br><i>Sungwon Lee</i>   |
| 16:30-16:50   | <b>BIS-I4: Optimizing GMR- and TMR-devices for sensing</b><br><i>G. Reiss</i>   |
| 16:50-17:10   | <b>BIS-I5: Novel design of electromagnetic tweezers</b><br><i>Alexander Omelyanchik, ValentinaBessalova, Nikolai Perov, Junjia Ding, Sergi Lendinez, Ekaterina Levada, Valentine Novosad, Valeria Rodionova</i> |
| <b>Break</b>  |   |

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|             | <b>PLENARY and CLOSING</b><br>Venue: <b>Ballroom 1 + 2</b><br>Chair: <i>Manh-Huong Phan, Nguyen Hoang Luong</i>          |
| 17:15-17:45 | <b>PL3: Topological Vortex Domains in Quantum Materials</b><br><u><i>Sang-Wook Cheong</i></u><br>Rutgers University, USA |
| 17:45-18:00 | <b>Poster Awarding</b>   |
| 18:00-18:15 | <b>CLOSING</b><br><u><i>Nguyen Huu Duc</i></u><br>Vice President of Vietnam National University, Hanoi (VNU), Vietnam    |

**DECEMBER 13, 2017 (WEDNESDAY)**

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| 08:30-17:00 | <b>Industrial and Cultural Events</b> |
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