Nov. 29 (Sun.)

Tutorial Seminar

13:50 - 14:00  Opening remarks  
Prof. Takeshi Kato

14:00 - 15:30  Tutorial-1  
Perpendicular magnetic anisotropy: from ultralow power spintronics to cancer therapy  
Russell Cowburn (University of Cambridge) .................................................................

15:30 - 15:45  Coffee Break

15:45 - 17:15  Tutorial-2  
A couple of advanced X-ray methods for magnetics and optics  
Eiichiro Matsubara (Kyoto University) .................................................................

17:15 - 18:45  Get Together

Nov. 30 (Mon.)

8:50 - 9:00  Opening remarks  
Prof. Mitsuteru Inoue

Mo-01  Energy Assisted Recording

9:00 - 9:30  Mo-01-01  
Technologies for three-dimensional magnetic recording  
Hirofumi Suto (Corporate Research and Development Center, Toshiba Corporation) ........

9:30 - 10:00  Mo-01-02  
Thermal design of L10 FePt based recording media for heat assisted magnetic recording (HAMR) application  
JiangFeng Hu (Data Storage Institute) .................................................................

10:00 - 10:30  Mo-01-03  
HAMR light delivery: process and integration challenges in a production environment  
John L. Ibele (Seagate Technology) .................................................................
10:30 - 10:45  Mo-01-04
Fabrication and characterization of the aperture antenna with V-groove structures to generate nanosized circularly polarized light
Yongfu Cai (Nagaoka University of Technology) .................................................................

10:45 - 11:00  Coffee Break

Mo-02  Magneto-Optical Device

11:00 – 11:30  Mo-02-01
Integrated magnetoplasmonic nanostructures for non reciprocal optical devices
Vy Yam (Institut d'Electronique Fondamentale, Univ Paris-Sud) ..................................................

11:30 -11:45  Mo-02-02
Magneto-optical spectroscopy of inhomogeneous magnetic materials: nanocomposites
Alexander B. Granovski (Lomonosov Moscow State University) ...................................................

11:45 – 12:00  Mo-02-03
Properties and linear birefringences of InGaAs/GaAsP semiconductor spin-vecsels: from experiments to theory and models
Henri Jaffres (CNRS-Thales) ........................................................................................................

12:00 - 12:15  Photograph

12:15 - 13:15  Lunch

Mo-P  Short Presentation & Poster Session

13:15 - 13:59  Short presentation
13:59 - 15:45  Poster session

Mo-P-01  Switching of the optically pumped magnetostatic spin waves in iron garnet disks
Mikhail A. Kozhaev (Russian Quantum Center) ........................................................................

Mo-P-02  Laser-induced antiferromagnetic-paramagnetic transition in a complex multi-sublattice CuB₂O₄
Alexandra M Kalashnikova (Kyushu University) ........................................................................

Mo-P-03  Ultrafast Demagnetization in Gd₂₃Fe₇₇₋ₓCoₓ
Souliman El Moussaoui (College of Science and Technology, Nihon University) ......................
Mo-P-04  The magnetic layer thickness dependency of all-optical magnetization switching in GdFeCo thin films  Hiroki Yoshikawa (Graduate School of Science and Technology, Nihon Univ.) ........................................

Mo-P-05  Gilbert damping constant of TbFe / GdFeCo bilayers with various layer stacks  Tomohiro Higashide (Graduate School of Engineering, Nagoya University) .................................

Mo-P-06  Large thickness dependency of static and dynamic magnetic properties in ferromagnetic GdFeCo thin films  Ryohei Ueda (Graduate School of Science and Technology, Nihon Univ.) ........................................

Mo-P-07  Magneto optic three dimensional display with magneto photonic crystals  Hiroyuki Takagi (Toyohashi University of Technology) .................................................................

Mo-P-08  Magneto-optical investigations of low-dimensional thin-film Co/Bi/Co systems  Elena Evgen'evna Shalygina (Lomonosov Moscow State University) ...........................................

Mo-P-09  Magnetic characteristics of Y₁.₃R₀.₅Fe₄Ga₁O₁₂ (R = Dy, Eu) films fabricated on glass substrates by metal organic decomposition method  Hina Saito (College of Science and Technology, Nihon University) ........................................

Mo-P-10  Transversal Kerr effect of In₁₋ₓMnₓAs layers prepared by ion implantation followed by pulsed laser annealing  Elena Alexandrovna Ganshina (MSU M.V. Lomonosov) ............................................................

Mo-P-11  Effect of yttrium substitution to Fe₃O₄ plated films on their optical absorption and magneto-optical response  Shinichiro Mito (National Institute of Technology, Tokyo College) ..................................................

Mo-P-12  Evaluation of optical coupling between magnetic layers and optical waveguides for polarization modulators  Kazuhiro Nishibayashi (Tokyo Institute of Technology) ................................................................

Mo-P-13  Analysis of strain in highly Bi-substituted neodymium iron gallium garnet thin films on GGG by MOD method  Michimasa Sasaki (Nagaoka University of Technology) .................................................................

Mo-P-14  Magnetic domain observation system with determination of the three-dimensional local magnetization direction  Sakaé Meguro (NEOARK Corporation) ..................................................................................

Mo-P-15  Optical and magneto – optical responses on plasmonic composite structures with squarely arranged gold particles and magnetic garnet  Hironaga Uchida (Tohoku Institute of Technology) .................................................................
Mo-P-16  Numerical analysis of the structure to reduce loss of optical waveguide circulator using the two-dimensional magnetophotonic crystal
Kazuo Yayoi (National Institute of Technology, Ibaraki College) .................................................................

Mo-P-17  Magnetophotonic crystals with multi-localization states for quantitative evaluation of defect depth in non-destructive testing
Ryosuke Hashimoto (Toyohashi University of Technology) .................................................................

Mo-P-18  Design of magnetophotonic crystal with heat-diffusive layers for well-defined magnetic fringe formation
Ryosuke Isogai (Toyohashi University of Technology) .................................................................

Mo-P-19  Circularity control of localized light by plasmonic antennas with fabrication margin
Shinichiro Ohnuki (Nihon University) .................................................................

Mo-P-20  High quality cerium yttrium iron garnet thin films for infrared magneto-optical applications
Lukas Beran (Charles University of Prague) .................................................................

Mo-P-21  Demonstration of Q-switch laser using magnetooptical garnet
Taichi Goto (Toyohashi University of Technology) .................................................................

Mo-P-22  Ethylene gas sensing and optical properties of SnO₂ nanowires synthesized via CVD method
Maisara A. M. Akhir (Universiti Sains Malaysia) .................................................................

15:45 - 16:00  Coffee Break

Mo-03  Advanced Measurement Technique

16:00 – 16:30  Mo-03-01  Current progress in nanometric magnetic moment measurements based on electron magnetic circular dichroism
Shunsuke Muto (Nagoya University) .................................................................

16:30 -17:00  Mo-03-02  Ultrafast spin dynamics observed by pump-probe X-ray holography
Stefan Eisebitt (Technische Universitat Berlin) .................................................................

17:00 – 17:30  Mo-03-03  Probing ultrafast magnetization dynamics with resonant X-ray scattering techniques
Jan Luning (Sorbonnes University Paris) .................................................................
Dec. 1 (Tue.)

**Tu-P Short Presentation & Poster Session**

9:00 - 9:46  Short presentation
9:46 - 11:30 Poster session

**Tu-P-01**  Effect of hotspot position fluctuation to writing capability in heated dot magnetic recording  
Warunee Tipcharoen (College of Data Storage, KMITL) .................................................................

**Tu-P-02**  Variation of effective damping factor for CoPt-based alloy films with various atomic stacking structures  
Shintaro Hinata (Tohoku University) ..................................................................................................

**Tu-P-03**  High coercivity CoPt-oxide granular films with low melting point oxide  
Kim Kong Tham (Tanaka Kikinzoku Kogyo K. K.) ............................................................................

**Tu-P-04**  Metallic layer / SiO₂ interface dependency of isolated FeCuPt grains shapes, magnetic properties and crystal structures  
Ren Kobayashi (Graduate School of Science and Technology, Nihon Univ.) ........................................

**Tu-P-05**  Size dependence of switching behavior in single epitaxial Co/Pt multilayer dots  
Bin Lao (Tohoku University) ............................................................................................................

**Tu-P-06**  Structural and magnetic transitions of CrPt₃ films by heat treatment and ion irradiation  
Kengo Fukuta (Nagoya University) ....................................................................................................

**Tu-P-07**  Magnetization behavior of L1₀-FePt alloy thin films prepared on single crystalline substrates  
Hiroki Iwama (Tohoku Gakuin University) .........................................................................................

**Tu-P-08**  Annealing stability in MgO/CoFeB/Ta/[Co/Pd]ₙ composite structures  
Valentin Garcia-Vazquez (Benemerita Universidad Autonoma de Puebla) ........................................

**Tu-P-09**  Fabrication of Nd-Fe-B circular dot arrays and their structure and magnetic properties  
Aya Sugawara (Tohoku Gakuin University) .......................................................................................  

**Tu-P-10**  Effect of buffer layers on the magnetic properties for Mn-Al thin films  
Naoya Kumagai (Tohoku Gakuin University) .....................................................................................

Exploring all-optical magnetic switching with resonant X-rays  
Alex H Reid (SLAC National Accelerator Laboratory) ........................................................................
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<td>Domain wall dynamics in Y-shaped permalloy nanowires</td>
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<td>Wavenumber dependence of surface plasmon polariton on layer structure using Au / YIG plasmon waveguide</td>
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<td>Te-ho Wu (Graduate School of Materials Science, Natl. Yunlin Univ. of Science and Technology)</td>
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11:30 - 12:45    Lunch

Tu-01    New Materials / Devices I

12:45 - 13:15    Tu-01-01
    Magneto-optic imaging of room temperature magnetic skyrmion bubbles
    Axel Hoffmann (Argonne National Laboratory) ...........................................

13:15 - 13:45    Tu-01-02
    Electric field control of magnetic moment in palladium
    Tomohiro Koyama (The University of Tokyo) .............................................

13:45 - 14:15    Tu-01-03
    Field, current and temperature induced domain walls dynamics: focus on ferrimagnets
    Alexandra Mougin (Laboratoire de Physique des Solides) ............................

14:15 - 14:30    Coffee Break

Tu-02    New Materials / Devices II

14:30 - 15:00    Tu-02-01
    Non-volatile magnetic logic devices
    Wen Siang Lew (Nanyang Technological University) .....................................

15:00 - 15:30    Tu-02-02
    Origin of ferromagnetism in functional topological insulators and semi-metals
    Tomasz Dietl (Polish Academy of Sciences) ..................................................

15:30 - 15:45    Tu-02-03
    Magnetic activity of surface plasmon resonance using dielectric magnetic materials fabricated on quartz glass substrate
    Kazuki Narushima (Nihon University) .........................................................

15:45 - 16:00    Coffee Break
**Tu-03  Magnonics**

16:00 - 16:30   Tu-03-01
Magnon transistor for all-magnon data processing
Alexander A. Serga (Technische Universitat Kaiserslautern) ..............................................................

16:30 - 17:00   Tu-03-02
Propagation, steering and detection of spin waves for magnonic applications
Helmut Schultheiss (Helmholtz-Zentrum Dresden-Rossendorf) .................................................................

17:00 - 17:30   Tu-03-03
Microwave properties of reconfigurable 2-D magnonic crystal
Arabinda Haldar (Department of Electrical and Computer Engineering, National University of Singapore) .................................................................

17:30 - 17:45   Tu-04-03
Unidirectional control of spin wave generated by light pulses using interference
Isao Yoshimine (Institute of Industrial Science, the University of Tokyo) ..............................................................

17:45 - 18:15   Award Ceremony

19:30 - 21:30   Banquet (Evergreen Laurel Hotel Penang)

**Dec. 2 (Wed.)**

**We-01  Thermo-magnetic Phenomena**

9:00 - 9:30   We-01-01
Theory of spin Seebeck effect in magnetic multilayers
Hiroto Adachi (Japan Atomic Energy Agency) ..............................................................

9:30 - 10:00   We-01-02
How magnonic spin currents move domain walls
Ulrich Nowak (University of Konstanz) ..............................................................

10:00 - 10:30   We-01-03
Heat conduction analysis from first principles
Takuma Shiga (The University of Tokyo) ..............................................................

10:30 - 10:45   Coffee Break
**We-02  Nano Magnetic Materials**

10:45 - 11:15  We-02-01  
New insights into the origin of magnetic anisotropy and damping by use of broadband ferromagnetic resonance spectroscopy  
Justin M Shaw (NIST)  

11:15 - 11:45  We-02-02  
Nanoscale manipulation of magnetic properties through local nanostructural features and proximity effects: the model cases of Fe nanoparticles and exchange biased Ni/FeF$_2$ nanostructures  
Arantxa Fraile Rodriguez (Universitat de Barcelona)  

11:45 - 12:00  We-02-03  
Novel materials by atomic engineering of magnetic moments  
Andrei Kirilyuk (Radboud University)  

12:00 - 13:15  Lunch  

**We-03  Spin Dynamics**

13:15 - 13:45  We-03-01  
All-optical helicity-dependent switching in magnetic nano-structures and devices  
Charles-Henri A Lambert (Institut Jean Lamour)  

13:45 - 14:15  We-03-02  
Ultrafast spin injection in semiconductors  
Marco Battiato (Vienna University of Technology)  

14:15 - 14:45  We-03-03  
Magnetization dynamics of itinerant and localized electrons in gadolinium metal  
Bjorn Frietsch (Free University Berlin)  

14:45 - 15:00  Closing Remarks  
Prof. Takayuki Ishibashi