TECHNICAL PROGRAM

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 $L1_0$ 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 CuB_2O_4

Alexandra M Kalashnikova (Kyushu University) ·····

Mo-P-03 Ultrafast Demagnetization in $Gd_{23}Fe_{77-x}Co_x$

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 $Y_{1.5}Bi_1R_{0.5}Fe_4Ga_1O_{12}$ (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 $In_{1-x}Mn_xAs$ 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 Fe_3O_4 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
Sakae 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 SnO_2 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) ·····

17:30 – 18:00 Mo-04-03

Exploring all-optical magnetic switching with resonant X-rays

Alex H Reid (SLAC National Accelerator Laboratory) ·····

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 / SiO_x 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 $CrPt_3$ films by heat treatment and ion irradiation

Kengo Fukuta (Nagoya University) ·····

Tu-P-07 Magnetization behavior of $L1_0$-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) ·····

Tu-P-11 Observation of hyperfine structure of DO_{22}-$Mn_{3-x}Fe_xGa$ by Mossbauer effect
Akira Koeba (Tohoku Gakuin University) ·····

Tu-P-12 Composition dependent isolated FeXPt100-X grains fabricated by rapid thermal annealing
Masayuki Imazato (Graduate School of Science and Technology, Nihon Univesity) ·····

Tu-P-13 Domain wall dynamics in Y-shaped permalloy nanowires
Jong-Ching Wu (National Changhua University of Education) ·····

Tu-P-14 Wavenumber dependence of surface plasmon polariton on layer structure using Au / YIG plasmon waveguide
Takuya Matsumoto (Graduate School of Science and Technology, Nihon University) ·····

Tu-P-15 Magnetooptical properties of magnetoelectric iron-based oxide films prepared by sol-gel synthesis
Kazuhiro Yamaguchi (Toyohashi University of Technology) ·····

Tu-P-16 Pr-Fe-B + α-Fe nano-composite film magnets prepared by PLD method
Masaki Nakano (Nagasaki University) ·····

Tu-P-17 Temperature and current-induced phase transition of $[(GeTe)_2/(Sb_2Te_3)_1]_n$ topological superlattices
Bang Do (Toyota Technological Institute) ·····

Tu-P-18 Optical and magneto-optical properties of Bi substituted Nd iron garnets prepared by metal organic decomposition method
Eva Jesenska (Nagaoka University of Technology) ·····

Tu-P-19 Current induced domain-wall motion in magnetic wire sputtered under different condition of the gas
Akihiro Sibata (Toyota technological institute) ·····

Tu-P-20 Current induced domain wall motion attributed to spin Hall effect and Dzyaloshinsky-Moriya interaction in Pt/GdFeCo(100nm) magnetic wire
Yuichiro Kurokawa (Toyota Technological Institute) ·····

Tu-P-21 Micromagnetic study of spin-torque nano-oscillators dipolar-coupled with a perpendicular magnetized layer
Te-ho Wu (Graduate School of Materials Science, Natl. Yunlin Univ. of Science and Technology) ····

Tu-P-22 Numerical analysis on magnetic vortex motion
Xiaorui Ya (Kyushu University) ·····

Tu-P-23 Anomalous tunnel magnetoresistance and spin transfer torque in magnetic tunnel junctions with embedded nanoparticles
Te-ho Wu (Graduate School of Materials Science, Natl. Yunlin Univ. of Science and Technology) ····

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