

TECHNICAL PROGRAM

Jan. 7 (Sun.)

Tutorial Seminar

Chair: Professor Kato (Nagoya University)

14:00–15:30 Tutorial-1
X-rays and Magnetism - Probing Magnetism on the Nanoscale
Hendrik Ohldag (SLAC National Accelerator Laboratory)

15:40–17:10 Tutorial-2
Tutorial on spintronics and its device applications
Atsufumi Hirohata (University of York)

17:15–18:45 Get Together

Jan. 8 (Mon.)

Opening Remarks

8:45–9:00
Professor Lisyansky (Queens College of CUNY)
Queens College President Rodríguez (Queens College of CUNY)

Mo-01 Fast Spin Reversal / Dynamics I

Chair: Arata Tsukamoto (Nihon University)

9:00–9:30 Mo-01-01
Cold ultrafast photo-magnetic recording in dielectrics
Andrzej Stupakiewicz (University of Bialystok)

9:30–10:00 Mo-01-02
Femtosecond manipulation of magnets via photoinduced magnons at the edges of the Brillouin zone
Davide Bossini (TU Dortmund)

10:00–10:15 Mo-01-03
Ab initio theory of light and current induced magnetization
Marco Berritta, Ritwik Mondal, Peter M. Oppeneer (Uppsala University)

10:15–10:30 Coffee Break

Mo-02 Magneto-optical Phenomena

Chair: Martin Veis (Charles University)

10:30–11:00 Mo-02-01

Magnetic and magneto-optical properties of metastable oxide thin films
Katsuhisa Tanaka (Kyoto University)

11:00–11:30 Mo-02-02

Resonant magneto-optically active structures: external control and enhancement
Antonio Garcia-Martin (Instituto de Micro y Nanotecnología, CSIC)

11:30–11:45 Mo-02-03

Femtosecond laser induced THz oscillations in rare earth iron garnet
Pritam Khan, Masataka Kanamaru, Takuya Satoh (Kyushu University)

11:45–12:00 Photograph

12:00–13:30 Lunch Time

Mo-P Short Presentation & Poster Session

13:30–14:30 Short presentation

14:30–16:00 Poster session

Mo-P-01 Magneto-optical Q-switch Nd:YAG laser with kilowatts output power

Ryohei Morimoto¹, Taichi Goto^{1, 2}, John Pritchard³, Mani Mina³, Takunori Taira⁴,
Hiroyuki Takagi¹, Yuichi Nakamura¹, Pang Boey Lim¹, Hironaga Uchida¹, Mitsuteru
Inoue¹ (¹Toyohashi University of Technology, ²JST PRESTO, ³Iowa State University,
⁴Institute for Molecular Science)

Mo-P-02 A magneto-optical light modulator driven by current induced domain wall motion

Kenichi Aoshima¹, Ryo Ebisawa^{1, 2}, Nobuhiko Funabashi¹, Kiyoshi Kuga¹, Kenji
Machida¹ (¹NHK Japan Broadcasting Corp., ²Tokai University)

Mo-P-03 MO imaging plate with backlight for quantitative measurement of magnetic field distribution

Yosuke Nagakubo¹, Michimasa Sasaki², Sakae Meguro³, Masami Nishikawa¹, Takayuki
Ishibashi¹ (¹Nagaoka University of Technology, ²OFFDIAGONAL Co., Ltd., ³Neoark Corp.)

Mo-P-04 Magneto-optical characteristics of Pt / TbCo heterostructure films

Syogo Iemoto¹, Satoshi Sumi¹, Hiroyuki Awano¹, Masamitsu Hayashi^{2, 3} (¹Toyota
Technological Institute, ²University of Tokyo, ³National Institute for Materials Science)

- Mo-P-05 Resonant enhancement of magneto-optical polarization conversion in microdisk resonators
Lev Deych^{1, 2}, Carlos Meriles^{2, 3}, Vinod Menon^{2, 3} (¹Queens College of CUNY, ²The Graduate Center of CUNY, ³City College of CUNY)
- Mo-P-06 Long spin-flip time and large Zeeman splitting of holes in type-II ZnTe / ZnSe submonolayer quantum dots
Haojie Ji^{1, 2}, Siddharth Dhomkar^{1, 2}, Rong Wu^{1, 2}, Jonathan Ludwig^{3, 4}, Zhengguang Lu^{3, 4}, Dmitry Smimov³, Maria Tamargo^{2, 5}, Garnett Bryant⁶, Igor Kuskovsky^{1, 2} (¹Queens College of CUNY, ²The Graduate Center of CUNY, ³National High Magnetic Field Laboratory, ⁴Florida State University, ⁵City College of CUNY, ⁶National Institute of Standards and Technology)
- Mo-P-07 Plasmonic artificial magnetic lattice
Hironaga Uchida¹, Keisuke Ooki², Shin Saito², Taichi Goto^{1, 3}, Hiroyuki Takagi¹, Pang Boey Lim¹, Yuichi Nakamura¹, Mitsuteru Inoue¹ (¹Toyohashi University of Technology, ²Tohoku University, ³JST PRESTO)
- Mo-P-08 Magneto-optic spatial light modulator for three-dimensional display using micro-lens array
Yota Kimura¹, Taichi Goto^{1, 2}, Hiroyuki Takagi¹, Yuichi Nakamura¹, Pang Boey Lim¹, Hironaga Uchida¹, Mitsuteru Inoue¹ (¹Toyohashi University of Technology, ²JST PRESTO)
- Mo-P-09 Reconstruction of magnetic hologram using multi-layered medium with discrete magnetic layers
Naoki Hoshiba¹, Zen Shirakashi¹, Taichi Goto^{1, 2}, Hiroyuki Takagi¹, Yuichi Nakamura¹, Pang Boey Lim¹, Hironaga Uchida¹, Mitsuteru Inoue¹ (¹Toyohashi University of Technology, ²JST PRESTO)
- Mo-P-10 Magneto-photoluminescence study of tellurium isoelectronic bound excitons in epitaxial Zn-Se-Te multilayer structures
Siddharth Dhomkar^{1, 2, 3}, Haojie Ji^{1, 3}, Rong Wu^{1, 3}, Vasilios Deligiannakis^{2, 3}, Jonathan Ludwig^{4, 5}, Dmitry Smimov⁴, Carlos A. Meriles^{2, 3}, Maria C. Tamargo^{2, 3}, Igor L. Kuskovsky^{1, 3} (¹Queens College, CUNY, ²City College of New York, CUNY, ³The Graduate Center, CUNY, ⁴National High Magnetic Field Laboratory, ⁵Florida State University)
- Mo-P-11 Magneto-optical spectroscopy of ferromagnetic Fe-Mn-Ga heusler alloys
Daniel Kral¹, L. Beran¹, R. Antos¹, J. Hamrle¹, O. Perevertov², M. Rames², O. Heczko², M. Veis¹ (¹Charles University, ²Academy of Sciences of the Czech Republic)
- Mo-P-12 Electrostatic force measurement on magnetic thin film under soft X-ray irradiation
Naoki Samura¹, Hikaru Nomura¹, Ryoichi Nakatani¹, Nobuaki Kikuchi², Satoshi Okamoto², Yoshinori Kotani³, Kentaro Toyoki³, Tetsuya Nakamura³, (¹Osaka University, ²Tohoku University, ³JASRI)
- Mo-P-13 Structure design of optical waveguide circulator using two-dimensional magnetophotonic crystal by photonic band engineering
Kazuo Yayoi¹, Taichi Goto², Hironaga Uchida², Mitsuteru Inoue² (¹Ibaraki College, ²Toyohashi University of Technology)
- Mo-P-14 Influence of crystallinity of ferromagnetic layer on magneto-refractive effect for Co_{100-x}B_x (x

= 0, 12, 20) / Ru multilayer film in reflection configuration

Shin Saito¹, Keisuke Ooki¹, Haruhiko Sato¹, Shiho Kinno¹, Koichi Akahane¹, Hironaga Uchida²
(¹Tohoku University, ²Toyohashi University of Technology)

- Mo-P-15 LLB simulation on a novel Curie temperature controlled hybrid thermo-magnetic structure
Ken Machida¹, Yoshiaki Sonobe², Yoshinobu Nakatani¹ (¹University of Electro-Communications, ²Samsung R&D Institute Japan)
- Mo-P-16 Magnetic anisotropy in bismuth, gallium substituted neodymium iron garnet thin films on GGG substrates determined by FMR measurements
Jion Yamakita¹, Gengjian Lou¹, Takeshi Kato², Satoshi Iwata², Masami Nishikawa¹, Takayuki Ishibashi¹ (¹Nagaoka University of Technology, ²Nagoya University)
- Mo-P-17 Influence of the transition metal on the magnetic properties of GdFeCo thin films for ultrafast magnetic recording
Souliman El Moussaoui, Hiroki Yoshikawa, Tetsuya Sato, Arata Tsukamoto (Nihon University)
- Mo-P-18 Ultrafast spin dynamics of magnetic metal alloys traced by resonant magneto-optical Kerr effect using free electron laser
Iwao Matsuda (The University of Tokyo)
- Mo-P-19 All-optical magnetization switching in GdFeCo/Pt
Hiroki Yoshikawa, Yasuhiro Futakawa, Yuichi Kasatani, Soulihan El Moussaoui, Arata Tsukamoto (Nihon University)
- Mo-P-20 Modification of magnetic inhomogeneous structure near the interfaces in amorphous GdFeCo ferrimagnetic thin film
Yasuhiro Futakawa, Hiroki Yoshikawa, Yuichi Kasatani, Soulihan El Moussaoui, Arata Tsukamoto (Nihon University)
- Mo-P-21 Microscopic mechanism behind all-optical magnetization switching in FeTb alloys
Ashima Arora^{1, 2}, Mohamad Assaad Mawass¹, Oliver Sandig³, Chen Luo⁴, Ahmet A. Unal¹, Florin Radu¹, Sergio Valencia¹, Florian Kronast¹ (¹Helmholtz-Zentrum Berlin für Materialien und Energie, ²Universität Potsdam, ³Freie Universität Berlin, ⁴University of Regensburg)
- Mo-P-22 Spin dynamics of ZnSe-ZnTe nanostructures grown by migration enhanced molecular beam epitaxy
Vasilios Deligiannakis^{1, 2}, Siddharth Dhomkar^{2, 3}, Haojie Ji^{2, 3}, Daniela Pagliero¹, Maria C. Tamargo^{1, 2}, Igor L. Kuskovsky^{2, 3}, Carlos A. Meriles^{1, 2} (¹The City College of CUNY, ²The Graduate Center of CUNY, ³Queens College of CUNY)
- Mo-P-23 Kinetics of Ag photo-dissolution in a-As₂S₃/Ag bilayer heterostructure
Pritam Khan^{1, 2, 3}, Xu Yinsheng¹, K. V. Adarsh², Ivan Biaggio¹, Himanshu Jain¹ (¹Lehigh University, ²Kyushu University, ³IISER Bhopal)
- Mo-P-24 Polarization properties of fifth harmonic signal in a-SNOM

Yuji Baba, Matsuya Iwao, Masami Nishikawa, Takayuki Ishibashi (Nagaoka University of Technology)

Mo-P-25 Multiple magnetic resonance and microwave absorption of metamaterial absorbers composed of double split ring resonators on grounded carbonyl iron composites
Jun-Hee Lim, Sung-Soo Kim (Chungbuk National University)

Mo-P-26 Decoherence mechanisms of type-II magneto-excitons
Igor L. Kuskovsky^{1,2}, Lev G Mourokh^{1,2}, Bidisha Roy^{1,2}, Haojie Ji^{1,2}, Siddharth Dhomkar^{1,2}, Jonathan Ludwig^{3,4}, Dmitriy Smirnov^{3,4}, Maria C. Tamargo^{2,5} (¹Queens College of CUNY, ²The Graduate Center of CUNY, ³National High Magnetic Field Laboratory, ⁴Florida State University, ⁵The City College of CUNY)

Mo-P-27 Surface plasmon resonance with magnetic activity in Ag-Co single layer sputtering films on organic substrate
Yoshito Ashizawa, Kenta Bando, Katsuji Nakagawa (Nihon University)

Mo-P-28 Optical modeling of periodic structures for high-accuracy and near field analyses
Roman Antos¹, Martin Veis¹, Jan Mistrik², Petr Janicek², Karel Palka², Liudmila Loghina², Miroslav Vlcek² (¹Charles University, ²University of Pardubice)

Mo-P-29 Bi₂Sr₂CaCu₂O₈ interlayer Josephson junctions as a coherent terahertz source: recent developments and future outlook
Timothy Mark Benseman^{1,2}, Alexei Koshelev², Vitalii Vlasko-Vlasov², Yang Hao², Ulrich Welp², Wai-Kwong Kwok², Boris Gross³, Matthias Lange³, Dieter Koelle³, Reinhold Kleiner³, Kazuo Kadowaki⁴ (¹Queens College of CUNY, ²Argonne National Laboratory, ³University of Tuebingen, ⁴University of Tsukuba)

Mo-P-30 Fabrication of high power laser stable glass imprinted SERS substrate
Jonghyun Ju, Mohsin Ali Badshah, Seok-min Kim (Chung-Ang University)

16:00-16:15 Coffee Break

Mo-03 Optics and Photonics

Chair: Timothy Mark Benseman (Queens College of CUNY, Argonne National Laboratory)

16:15-16:45 Mo-03-01
Wave propagation in translucent and diffusive media
Azriel Z. Genack (Queens College of CUNY)

16:45-17:15 Mo-03-02
Solids in ultrafast superstrong fields
Mark I. Stockman (Georgia State University)

17:15–17:45 Mo-03-03
Electron k-microscopy: a new probe for plasmonic electron emission, bandstructure and spin-texture
Gerd Schoenhense (Johannes Gutenberg Universitaet)

17:45–18:00 Mo-03-04
Surface-plasmon opto-magnetic field enhancement for all-optical magnetization switching
Aveek Dutta, Deesha Shah, Bradlee Beauchamp, Vladimir M. Shalaev, Ernesto E. Marinero, Alexandra Boltasseva (Purdue University)

Jan. 9 (Tue.)

Tu-01 Nano X-ray Imaging

Chair: Tetsuya Nakamura (Japan Synchrotron Radiation Research Institute)

9:00–9:30 Tu-01-01
All-optical switching on the sub-micron length scale: discerning the impact of dipolar fields, heating and laser helicity
Ashima Arora, Lukas Gierster, Ahmet Akin Uenal, Oliver Sandig, L. Chen, Florin Radu, Sergio Valencia, Florian Kronast (Helmholtz-Zentrum-Berlin)

9:30–10:00 Tu-01-02
Synchrotron X-ray scanning tunneling microscopy: a novel approach for the nanoscale characterization of materials with chemical and magnetic contrast
Volker Rose (Argonne National Laboratory, Ohio University)

10:00–10:15 Tu-01-03
Elementally resolved ferromagnetic resonance by X-ray magnetic circular dichroism on Co/Pt multilayer dots
Nobuaki Kikuchi¹, Takahiro Yomogita¹, Daiki Kanahara¹, Satoshi Okamoto¹, Osamu Kitakami¹, Takehito Shimatsu¹, Hitoshi Osawa², Yoshinori Kotani², Kentaro Toyoki², Motohiro Suzuki², Tetsuya Nakamura² (¹Tohoku University, ²JASRI)

10:15-10:30 Coffee Break

Tu-02 Magnonics

Chair: Andrew Kent (New York University)

10:30–11:00 Tu-02-01
Magnetic domain walls as spin-wave nanochannels
Kai Wagner (Helmholtz-Zentrum Dresden - Rossendorf, Technical University Dresden)

11:00–11:30 Tu-02-02

Magnon-based logic in a multi-terminal YIG/Pt nanostructure

Kathrin Ganzhorn^{1, 2}, Stefan Klingler^{1, 2}, Tobias Wimmer^{1, 2}, Stephan Gepraegs¹, Rudolf Gross^{1, 2, 3}, Hans Huebl^{1, 2, 3}, Sebastian T. B. Goennenwein^{1, 3, 4}

(¹Walther-Meisner-Institute, ²Technische Universität München, ³Nanosystems Initiative Munich, ⁴Technische Universität Dresden)

11:30–11:45 Tu-02-03

Broadband emission of propagating spin waves in graded magnonic landscapes

Fedor Mushenok¹, Rene Dost², Carl Davies¹, Dan Allwood², Beverley Inkson², Vlad Poimanov³, Volodymyr Kruglyak¹ (¹University of Exeter, ²University of Sheffield, ³Donetsk National University)

11:45–13:30 Lunch Time

Tu-P Short Presentation & Poster Session

13:30–14:22 Short presentation

14:22–16:00 Poster session

Tu-P-01 Frequency dependence of microwave-assisted switching in CoCrPt granular perpendicular media
Kyohei Shimada, Takehito Shimatsu, Nobuaki Kikuchi, Satoshi Okamoto, Osamu Kitakami (Tohoku University)

Tu-P-02 Influence of optical parameters of protection layers on heating process in heat assisted magnetic recording
Kousuke Kimura, Yoshihiko Hayashi, Yoshito Ashizawa, Shinichiro Ohnuki, Katsuji Nakagawa (Nihon University)

Tu-P-03 Effect of utilizing multiple oxides on magnetic properties and microstructure of CoPt-B₂O₃ granular media
Kim Kong Tham¹, Ryosuke Kushibiki¹, Shintaro Hinata², Shin Saito² (¹Tanaka Kikinzoku Kogyo K.K., ²Tohoku University)

Tu-P-04 Transition shift in heat-assisted magnetic recording
Warunee Tipchareon¹, Chanon Warisam¹, Damrongsak Tongsoomporn² (¹College of Advanced Manufacturing Innovation, KMITL, ²Seagate Technology (Thailand))

Tu-P-05 Withdraw

Tu-P-06 Fast current-induced domain wall motion in Tb/Co multilayered wires with symmetric structure
Pham Van Thach^{1, 2}, Do Bang^{1, 2}, Hiroyuki Awano¹ (¹Toyota Technological Institute, ²Institute of Materials Science, VAST)

- Tu-P-07 2-dimensional spectra measurement and analysis from a scanning soft X-ray MCD spectromicroscope
Kentaro Toyoki¹, Yoshinori Kotani¹, David Billington¹, Hiroyuki Okazaki¹, Satoshi Hirosawa², Tetsuya Nakamura^{1,2} (¹Japan Synchrotron Radiation Research Institute, ²National Institute for Materials Science)
- Tu-P-08 Spin-orbit torque in 4f-metal / RE-TM ferrimagnet heterostructures
Yuichi Kasatani, Hiroki Yoshikawa, Yasuhiro Futakawa, Arata Tsukamoto (Nihon University)
- Tu-P-09 Effect of Ag on the growth and magnetic properties for FePt thin films
Kyo Ishida, Masaaki Doi, Toshiyuki Shima (Tohoku Gakuin University)
- Tu-P-10 Effect of SiN underlayer on the crystallization process of isolated FePt grains in rapid thermal annealing
Keisuke Miyoshi, Toshiki Naeki, Masahiro Tanaka, Yasuhiro Futakawa, Hiroki Yoshikawa, Arata Tsukamoto (Nihon University)
- Tu-P-11 The formation of monodisperse patterned FePt dots by rapid thermal annealing
Toshiki Naeki, Keisuke Miyoshi, Masahiro Tanaka, Yasuhiro Futakawa, Hiroki Yoshikawa, Arata Tsukamoto (Nihon University)
- Tu-P-12 FMR linewidth variation with distance from lateral antiferromagnet / ferromagnet interfaces
Takamasa Usami¹, Rantej Bali², Jurgen Lindner², Mitsuru Itoh¹, Tomoyasu Taniyama¹ (¹Tokyo Institute of Technology, ²Helmholtz-Zentrum Dresden-Rossendorf)
- Tu-P-13 Photovoltage detection of spin excitation of nanomagnets with 2D electron system
Najla Khaled Almulhem¹, M. E. Stebly², Alain Nogaret¹, J. C. Portal³, H. E. Beere⁴, D. A. Ritchie⁴ (¹University of Bath, ²Far Eastern Federal University, ³High Magnetic Field Laboratory, CNRS, ⁴Cavendish Laboratory)
- Tu-P-14 Magnetic resonance of garnet film fabricated by metal organic decomposition method
Hina Saito, Yuichi Kasatani, Kuniaki Shibata, Hideomi Hashiba, Yoshito Ashizawa, Shinichiro Ohnuki, Arata Tsukamoto, Katsuji Nakagawa (Nihon University)
- Tu-P-15 Stretching magnetism with an electric field in a nitride semiconductor
Dariusz Sztenkiel¹, Marek Foltyn¹, Grzegorz Mazur¹, Radjeep Adhikari², Kamil Kosiel³, Katarzyna Gas^{1,4}, Maciej Zgirski¹, Renata Kruszka³, Rafal Jakiela¹, Tian Li¹, Anna Piotrowska³, Alberta Bonanni², Maciej Sawicki¹, Tomasz Dietl^{1,5,6} (¹Polish Academy of Sciences, ²Johannes Kepler University, ³Institute of Electron Technology, ⁴University of Wroclaw, ⁵International Research Centre for Interfacing Magnetism and Superconductivity with Topological Matter - MagTop, ⁶Tohoku University)
- Tu-P-16 Giant exchange bias properties in "314-type" oxygen-vacancy ordered materials
Prachi Mohanty, Sourav Marik, Deepak Singh, Ravi P. Singh (Indian Institute of Science Education and Research Bhopal)

- Tu-P-17 Maximum likelihood realization for the image of magnetic domain structures in RMC method with the replica exchange scheme
Chiharu Mitsumata¹, Maki Tokii², Kanta Ono³ (¹National Institute for Materials Science, ²University of Tsukuba, ³High Energy Accelerator Research Organization (KEK))
- Tu-P-18 Washimi-Karpman ponderomotive magnetization in quantum plasmas
Myoung-Jae Lee, Young-Dae Jung (Hanyang University)
- Tu-P-19 Damping coefficient enhancement evidence for spin orbit interaction on [(GeTe)₂/(Sb₂Te₃)₁]₂₀ superlattices
Yuichiro Hirano¹, Satoshi Sumi¹, Do Bang¹, Hiroyuki Awano¹, Yuta Saito², Junji Tominaga² (¹Toyota Technological Institute, ²National Institute of Advanced Industrial Science & Technology (AIST))
- Tu-P-20 Spin transfer torque switching of Co/Pd-based multilayers with low Curie temperature
Takumi Kimura¹, Xiayin Dong¹, Daiki Oshima¹, Takeshi Kato¹, Yoshiaki Sonobe², Yoshiaki Kawato², Satoshi Iwata¹ (¹Nagoya University, ²Samsung R&D Institute Japan)
- Tu-P-21 Compositional dependence of spin orbit torques in ferrimagnetic GdFeCo / Ta bilayers
Keisuke Kawakami, Daiki Oshima, Takeshi Kato, Satoshi Iwata (Nagoya University)
- Tu-P-22 Acoustoelectric current in suspended quantum point contacts: magnetic field effects
Lev Murokh^{1, 2}, Dustin Kreft³, Hyuncheol Shin³, Max Bichler⁴, Werner Wegscheider⁵, Pai Zhao⁶, Lars Tiemann⁵, Robert Blick^{3, 6} (¹Queens College of CUNY, ²The Graduate Center of CUNY, ³University of Wisconsin - Madison, ⁴Technical University Munich, ⁵ETH Zurich, ⁶University of Hamburg)
- Tu-P-23 Magnetoelastic modulation of perpendicular magnetic anisotropy of Co/Ni multilayer / BaTiO₃
Ikuya Kokawa, Katsuyoshi Komatsu, Takamasa Usami, Mitsuru Itoh, Tomoyasu Taniyama (Tokyo Institute of Technology)
- Tu-P-24 Optical and magnetic properties of copper ion in ZnO quantum dot: a GGA+U study
Oksana Volnianska, Piotr Boguslawski (Polish Academy of Sciences)
- Tu-P-25 Temperature dependence of optical and magneto-optical properties of Tb₃Fe₅O₁₂ thin films
Lukas Beran^{1, 2}, Ethan Rosnberg², Jan Setina¹, Andy Quindeau², Caroline A. Ross², Martin Veis¹ (¹Charles University, ²Massachusetts Institute of Technology)
- Tu-P-26 Fanout element for nanomagnet logic circuit
Hikaru Nomura, Naomichi Yoshioka, Soichiro Miura, Ryoichi Nakatani (Osaka University)
- Tu-P-27 Withdraw
- Tu-P-28 Micromagnetic study of spin-torque nano-oscillators

Ching-Ming Lee, Yuan-Yi Liao, Te-ho Wu, (Yunlin University of Scienc and Technology)

16:00-16:15 Coffee Break

Tu-03 Energy Assisted Recording

Chair: Shin Saito (Tohoku University)

16:15–16:45 Tu-03-01

Enablers for heat-assisted magnetic recording head

Barry C. Stipe, Gregory Hohensee, Marc Finot, Seheon Kim, Stanley Burgos, Takuya Matsumoto (Western Digital)

16:45–17:15 Tu-03-02

Plasmonic near field transducer for heat-assisted magnetic recording

Anurup Datta, Xianfan Xu (Purdue University)

17:15–17:45 Tu-03-03

Meeting the challenges in heat assisted magnetic recording

Jian-Gang Zhu, Yuwei Qin (Carnegie Mellon University)

17:45-18:30 Move to Hotel by bus

18:30-21:00 Banquet

Jan. 10 (Wed.)

We-01 Fast Spin Reversal / Dynamics II

Chair: So Takei (Queens College of CUNY)

9:00–9:30 We-01-01

Time-resolved studies of the spin-transfer switching mechanisms in magnetic tunnel junctions

Andrew D. Kent (New York University)

9:30–10:00 We-01-02

Ultrafast all-optical switching of magnetic tunnel junctions with sub-picosecond infrared laser pulses

Jun-Yang Chen, Li He, Jian-Ping Wang, Mo Li (University of Minnesota)

10:00–10:15 We-01-03

THz radiation generation form interfacial Rashba spin-orbit coupling

Matthias B. Jungfleisch¹, Qi Zhang¹, Wei Zhang², John E. Pearson¹, Richard D. Schaller^{1, 3}, Haidan Wen¹, Axel Hoffmann¹ (¹Argonne National Laboratory, ²Oakland University, ³Northwestern University)

10:15-10:30 Coffee Break

We-02 New Materials / Devices

Chair: Axel Hoffmann (Argonne National Laboratory)

10:30-11:00 We-02-01

Magneto-optics of relativistic-like electrons in solids

Milan Orlita (Laboratoire National des Champs Magnetiques Intenses - CNRS)

11:00-11:30 We-02-02

Thermal imaging of spin-caloritronic phenomena: from fundamentals to applications

Ken-ichi Uchida (National Institute for Materials Science)

11:30-11:45 We-02-03

Spin current generation by mechanical rotation

Atsufumi Hirohata¹, Yuji Baba², Benedict A. Murphy¹, Benny Ng³, Yunqi Yao³, Kazuki Nagao², Jun-young Kim¹ (¹University of York, ²Nagaoka University of Technology, ³City University of Hong Kong)

We-03 Advanced Measurement Technique

11:45-12:15 We-03-01

Ultrafast spin dynamics probed by tabletop coherent EUV beams

Margaret Murnane (University of Colorado at Boulder)

12:15-14:00 Lunch Time

We-03 Advanced Measurement Technique (Continuation)

Chair: Kentaro Toyoki (Japan Synchrotron Radiation Research Institute)

14:00-14:30 We-03-02

K-resolved electronic structure of buried interfaces by soft-X-ray ARPES

Alla Chikina¹, Marius A. Husanu^{1, 2}, Vladimir N. Strocov¹ (¹Paul Scherrer Institute, ²National Institute of Materials Physics)

14:30-14:45 We-03-03

Rapid 3D mapping of Fermi surface and Fermi velocity

Katerina Medjanik (Johannes Gutenberg Universitat)

Closing session

14:45-15:00 Award ceremony

15:00-15:15 Closing remarks
Professor Ishibashi (Nagaoka University of Technology)