

TECHNICAL PROGRAM

MORIS2013

Dec. 2 (Mon.)

Tutorial Seminar

sponsored by IEEE Magnetics Society Japan Chapter and MORIS2013

13:50 ~ 14:00 Opening Remarks
Akira Kikitsu

14:00 ~ 15:30 Tutorial-1
Advanced spintronic materials: for generation and control of spin current
Koki Takanashi (Tohoku University)

15:30 ~ 15:45 Coffee Break

15:45 ~ 17:15 Tutorial-2
Solid-state quantum computing with spin qubits
Daniel Loss (University of Basel)

17:15 ~ 19:15 Get Together

Dec. 3 (Tue.)

8:50 ~ 9:00 Opening Remarks
Hiroyuki Awano

Tu-01 Dynamics and Imaging I

9:00 ~ 9:30 Tu-01-01
Extended magnetoelectric functionalities in improper ferroelectrics
M. Fiebig (Eidgenössische Technische Hochschule Zürich)

9:30 ~ 10:00 Tu-01-02
Control of magnon in ferromagnetic metals: magnon spintronics
K. Sekiguchi (Keio University)

10:00 ~ 10:30 Tu-01-03
Ultrafast laser-induced demagnetization and magnetization reversal in ferrimagnetic GdFeCo alloys
R. Medapalli, I. Razdolski, M. Savoini, A. R. Khorsand, A. M. Kalashnikova*, A. Tsukamoto**, A. Itoh**,
A. Kirilyuk, A. V. Kimel, Th. Rasing
(Radboud University Nijmegen, *Russian Academy of Science, **Nihon University)

10:30 ~ 10:45 Coffee Break

Tu-02 Energy Assisted Magnetic Recording

10:45 ~ 11:15 Tu-02-01

All-optical magnetization switching in GdFeCo structures

L. Guyader (Helmholtz-Zentrum Berlin für Materialien und Energie)

11:15 ~ 11:45 Tu-02-02

Magnetization switching assisted by spin wave

T. Seki, K. Takanashi (Tohoku University)

11:45 ~ 12:15 Tu-02-03

Heat assisted magnetic recording

T. Klemmer (Seagate Technology)

12:15 ~ 13:45 Lunch

Tu-P Short Presentation & Poster Session

13:45 ~ 14:45 Short Presentation (Oral)

14:45 ~ 16:30 Discussions (Poster)

Tu-P-01 Super-exchange ferromagnetic order analysis of FeO-modified graphene-nano-ribbon

N. Ota (University of Tsukuba)

Tu-P-02 Diameter control of FePt nanoparticles encapsulated in carbon nanotubes

S. Takase, K. Hori, Y. Fujiwara, H. Sato, K. Maeda, T. Kato*, T. Kobayashi, M. Jimbo**, S. Iwata*

(Mie University, *Nagoya University, **Daido University)

Tu-P-03 Magnetic properties of NiFe₂O₄ (001) epitaxial films fabricated by reactive sputtering

J. Morishita, T. Niizeki, H. Yanagihara, E. Kita (University of Tsukuba)

Tu-P-04 Ce-substituted yttrium iron garnets prepared by rf sputtering and their structural and magneto-optical properties

T. Hattori, H. Shimizu (Tokyo University of Agriculture and Technology)

Tu-P-05 Magneto-optical properties of Co ferrite thin films by metal-organic decomposition (MOD) method on glass substrate

M. Sasaki, M. Ninomiya, T. Suzuki, T. Yoshida, S. Goto, T. Ishibashi (Nagaoka University of Technology)

Tu-P-06 Particle size control in CoFeAlSi-MgF₂ granular films

M. Shinoda, H. Niwa, Y. Fujiwara, T. Kato*, M. Jimbo**, T. Kobayashi

(Mie University, *Nagoya University, **Daido University)

Tu-P-07 Hydrogen absorption effect on magnetism of Pd/Co/Pd trilayers and Pd/Fe, Co, Ni bilayers

C. J. Tsai, C. H. Kao*, B. Y. Wang*, W. F. Pong*, W. C. Lin

(National Taiwan Normal University, *Tamkang University)

Tu-P-08 Measurement of thermo magnetic properties and increase of areal density of isolated L1₀-FeCuPt grain

J. Tsukioka, T. Ubana, A. Tsukamoto, A. Itoh (Nihon University)

Tu-P-09 Fabrication of self-assembled silica nano particles layer (SASP) on metal film for etching mask

K. Iida, S. Fuji, J. Tsukioka, A. Tsukamoto, A. Itoh (Nihon University)

Tu-P-10 Studies on a current driven domain wall split at the branching path of the TbFeCo magnetic wire

T. Maeda, H. Awano (Toyota Technological Institute)

Tu-P-11 Interplay of magnetic anisotropies in epitaxial ferromagnetic hybrids of Fe and (Ga, Mn)As

K. Dziatkowski (University of Warsaw)

Tu-P-12 Manipulation of domain wall motion in Tb-Fe-Co wires by spin-orbit induced Rashba and spin hall effects

B. Do, H. Awano (Toyota Technological Institute)

- Tu-P-13 Plane wave expansion method applied to 2D magneto-photonic crystals with an arbitrary cross-section
R.Antos, M.Veis (Charles University)
- Tu-P-14 Spin wave transmission on properties with magnonic crystals
N. Kanazawa, T. Goto, H. Takagi, Y. Nakamura, M. Inoue (Toyohashi University of Technology)
- Tu-P-15 Plasmonic magnetophotonic crystals
N. E. Khokhlov^{1), 2)}, V. I. Belotelov^{1), 2)}, D.A. Bykov³⁾, V. N. Berzhansky⁴⁾, A. N. Shaposhnikov⁴⁾, T.V. Mikhailova⁴⁾, A. R. Prokopov⁴⁾, A.V. Karavainikov⁴⁾, Yu. M. Kharchenko⁵⁾.
(¹⁾Lomonosov Moscow State University, ²⁾Russian Quantum Centre, ³⁾Russian Academy of Sciences, ⁴⁾Taurida National V.I.Vernadsky University, ⁵⁾National Academy of Sciences of Ukraine)
- Tu-P-16 The effect of substrate artificial texture on high-frequency properties of thin magnetic films
B.A. Belyaev^{*,**}, A.V. Izotov^{***}, A.A. Leksikov^{*}, A. M. Serzhantov^{***}, K.V. Lemberg^{***}, P. N. Solovev^{***}
(*Russian Academy of Science, **Siberian State Aerospace University, ***Siberian Federal University)
- Tu-P-17 Evaluation of permeability spectrum in ferromagnetic Ni nanorod arrays for application to meta-material
S. J. Jeon, D.Y. Kim, S. S.Yoon (Andong National University)
- Tu-P-18 Numerical analysis on quantized standing spin wave in nano-structured active ring resonator
B. Peng, Y. Urazuka, T. Tanaka, K. Matsuyama (Kyushu University)
- Tu-P-19 Synchronous motion of multiple domain walls in a ferromagnetic nanowire by perpendicular field pulses
J. S. Kim^{1), 2)}, B. Krüger¹⁾, M.A. Mawass^{1), 4)}, A. Bisig¹⁾, R. Reeve¹⁾, T. Schulz¹⁾, F. Büttner¹⁾, M. Weigand⁴⁾, H. Stoll⁴⁾, J. Yoon³⁾, C.Y. You³⁾, H. J. M. Swagten²⁾, B. Koopmans²⁾, M. Kläui¹⁾
(¹⁾Johannes Gutenberg-Universität, ²⁾Eindhoven University of Technology, ³⁾Inha University, ⁴⁾Max Planck Institute for Intelligent Systems)
- Tu-P-20 Estimation of perpendicular anisotropy and Gilbert damping constant of Co/Pt multilayers using TRMOKE
K. Adachi, T. Kato, S. Okamoto^{*}, N. Kikuchi^{*}, O. Kitakami^{*}, S. Iwata
(Nagoya University, ^{*}Tohoku University)
- Tu-P-21 Incidence angle and polarization dependence of photo-induced FMR in Co/Pd multilayers
J. Saeki, K. Nishibayashi, T. Mazda, Y. Kitamoto, H. Munekata (Tokyo Institute of Technology)
- Tu-P-22 Polarization dependences of photoinduced spin oscillations in antiferromagnet NiO
K. Otani^{*}, T. Satoh^{*,**}, H. Ueda^{***}, T. Shimura^{*}
(*The University of Tokyo, **Japan Science and Technology Agency, ***Kyoto University)
- Tu-P-23 Thermally assisted magnetization switching on magnetic tunnel junctions with perpendicularly magnetized TbFe layer
D. Yoshikawa, Y. Fujisawa, T. Kato, S. Iwata, S. Tsunashima^{*}
(Nagoya University, ^{*}Nagoya Industrial Science Research Institute)
- Tu-P-24 Efficient analysis of electromagnetic problems for nanoscale antennas by fast inverse Laplace transform
S. Kishimoto, T. Okuda, S. Ohnuki, Y. Ashizawa, K. Nakagawa (Nihon University)
- Tu-P-25 Circularly polarized light detectors based on ferromagnet / semiconductor junctions
H. Ikeda, N. Nishizawa, K. Nishibayashi, H. Munekata (Tokyo Institute of Technology)
- Tu-P-26 Numerical simulation for magnetization manipulation of three dimensional magnetic logic gate with magnetic force microscopy
K. Iwaki, H. Nomura, R. Nakatani (Osaka University)
- Tu-P-27 Polarization property of apertureless near-field scanning optical microscopy
Q. Meng, H. Miyajima, Y. Cai, H. Ono, A. Emoto^{*}, T. Shioda^{**}, T. Ishibashi
(Nagaoka University of Technology, ^{*}National Institute of Advanced Industrial Science and Technology, ^{**}Saitama University)
- Tu-P-28 Design of plasmonic antennas and particulate media for ultra high-speed magnetic recording
S. Ohnuki, Y. Takano, Y. Ashizawa, K. Nakagawa (Nihon University)

Tu-P-29 Vortex state free layer tunnelmagnetoresistance-sensors

F. Casper, R. Lehdorff*, J. Paul*, M. Kläui (Johannes Gutenberg - University, *Sensitec GmbH)

Tu-P-30 Investigation of NOT function for current driven spin logic with TbFeCo magnetic wire.

T.Kanehira, H.Awano (Toyota Technological Institute)

16:30 ~ 16:45 Coffee Break

Tu-03 Dynamics and Imaging II

16:45 ~ 17:15 Tu-03-01

Rise time effect on magnetization reversal of Co/Pt multilayer nanodots by nanoseconds pulse fields

N. Kikuchi, S. Okamoto, M. Furuta, O. Kitakami, T. Shimatsu (Tohoku University)

17:15 ~ 17:30 Tu-03-02

Ultrafast time-resolved magneto-optical imaging of spin waves in in-plane magnetized Bi-doped iron garnet

Y. Hashimoto, B. Koene, A.V. Kimel, A. Kiriluk, Th. Rasing (Radboud University Nijmegen)

17:30 ~ 17:45 Tu-03-03

Magnetic imaging of LSMO thin films using scanning electron microscopy with polarization analysis

R. M. Reeve, C. Mix, M. König, P. Krautscheid, C. Engel, M. Foerster, G. Jakob, M. Kläui (Johannes Gutenberg-Universität Mainz)

17:45 ~ 18:00 Tu-03-04

Time resolved photographic detection of spatial magnetic field distribution by magneto-optical imaging technique with magnetic transfer films

S. Meguro, Y. Konishi, E. Yanagisawa, T. Ishibashi*, S. Saito**, M. Takahashi**

(NEOARK Corporation, *Nagaoka University of Technology, **Tohoku University)

18:00 ~ 18:15 Tu-03-05

Time resolved imaging of the gyrotropic motion of a skyrmion with 3 nanometer tracking accuracy

F. Büttner^{1), 2), 3)}, M. Schneider³⁾, C. Moutafis⁴⁾, B. Krüger¹⁾, C. M. Günther³⁾, J. Geilhufe⁵⁾,

C. v. Korff Schmising³⁾, J. Mohanty³⁾, B. Pfau³⁾, S. Schaffert³⁾, M. Foerster¹⁾, T. Schulz¹⁾,

C.A. F. Vaz^{1), 4)}, J. H. Frankeng⁶⁾, H. J. M. Swagten⁶⁾, M. Kläui¹⁾, and S. Eisebitt^{3), 5)}

(¹⁾Johannes-Gutenberg-Universität Mainz, (²⁾Graduate School Materials Science in Mainz,

(³⁾Technische Universität Berlin, (⁴⁾Paul Scherrer Institute,

(⁵⁾Helmholtz-Zentrum Berlin für Materialien und Energie GmbH,

(⁶⁾Eindhoven University of Technology)

Dec. 4 (Wed.)

We-P Short Presentation & Poster Session

9:00 ~ 9:58 Short Presentation (Oral)

9:58 ~ 11:45 Discussions (Poster)

We-P-01 Dual origin of defect magnetism in graphene and its reversible switching by molecular doping

R. R. Nair, I. L. Tsai, M. Sepioni, A. K. Geim, I. V. Grigorieva

(Manchester Centre for Mesoscience and Nanotechnology)

We-P-02 Magnetism modulation of Fe/ZnO by direct heating induced interface oxidation

P. C. Chang, C. C. Shieh, C. J. Tsai, C. W. Huang, F. Y. Lo, W. C. Lin (National Taiwan Normal University)

- We-P-03 Magneto-optic effect and magnetic anisotropy of Bi:YIG thin films prepared by metal organic decomposition
D.A.Wahid, T. Hattori, J. Sato, H. Shimizu (Tokyo University of Agriculture and Technology)
- We-P-04 Deposition and characterization of aluminum nitride thin films as an insulator for gate-control devices of magnetism
H. Oikawa, I. Harayama, K. Nagashima, D. Sekiba, Y. Ashizawa*, A. Tsukamoto*, K. Nakagawa*, R. Akiyama, K. Kanazawa, S. Kuroda, N. Ota (University of Tsukuba, *Nihon University)
- We-P-05 Perpendicular magnetic anisotropy in ultra thin GdFeCo sputtered films
Y. Ashizawa, H. Oikawa*, A. Tsukamoto, K. Nakagawa, R. Akiyama*, K. Kanazawa*, S. Kuroda*, N. Ota* (Nihon University, *University of Tsukuba)
- We-P-06 Fabrication of perpendicularly magnetized L_{10} -FePt / permalloy nanodots with a twisted spin structure
W. Zhou, T. Seki, T. Yamamoto, K. Takanashi (Tohoku University)
- We-P-07 High density formation of FePt alloy nanodots on SiO₂ induced by remote hydrogen plasma
R. Fukuoka, H. Zhang, K. Makihara, Y. Tokuoka, T. Kato, S. Iwata, S. Miyazaki (Nagoya University)
- We-P-08 Structures and magnetic properties of the perpendicular oriented meso-porous silica thin films with Co prepared with the electrochemically assisted self-assembly
T. Nakashima, T. Haeiwa (Shinshu University)
- We-P-09 Temperature estimation of TbFeCo magnetic nanowire by using Hall effect measurement
M. Kawamoto, D. Bang, H. Awano (Toyota Technological Institute)
- We-P-10 Reduce field-driven domain wall injection field in permalloy nanowires via symmetry destruction
H. Y. Lu, K. C. Hu, F. C. Wu, Y. M. Kao, J. C. Wu, L. Horng (National Changhua University of Education)
- We-P-11 Domain wall pinning and domain wall magnetoresistance in clean UHV electromigrated permalloy point contacts
R. M. Reeve*, A. Loescher*, M. Mawass*, A. von Bieren**, R. Hoffman-Vogel***, M. Kläui*,** (*Johannes Gutenberg-Universität Mainz, **Paul Scherrer Institut, ***Karlsruhe Institute of Technology Campus South)
- We-P-12 Field and current-induced motion of magnetic domain walls in (Co/Ni) nanostrips
K. Yamada***, J. P. Jamet*, Y. Nakatani**, K. Ueda***, R. Weil*, A. Mougin*, A. Thiaville*, T. Ono*** (*Université Paris-Sud, **University of Electro-communications, ***Kyoto University)
- We-P-13 Magnetic response of surface plasmons in non-solid solution Ag₇₅Co₂₅ films
T. Tachikawa, K. Narushima, Y. Ashizawa, K. Nakagawa (Nihon University)
- We-P-14 High-spatial resolution and high-contrast magneto-optical imaging by magnetophotonic crystals
R. Hashimoto, H. Takagi, T. Yonezawa, K. Sakaguchi, M. Inoue (Toyohashi University of Technology)
- We-P-15 Basic study of ferromagnetic / anti-ferromagnetic transformation in RE-TM multilayer for all optical recording
H. Ono, Y. Suzuki, H. Awano (Toyota Technological Institute)
- We-P-16 Modification of magnetoelastic anisotropy in strain controllable thin films on PZT substrate
C. W. Huang, P. C. Chang, C. J. Tsai, W. C. Lin (National Taiwan Normal University)
- We-P-17 Spin wave emission in rare-earth iron garnet by linearly polarized light pulses
I. Yoshimine*, T. Satoh*,**, R. Iida*, A. Stupakiewicz***, T. Shimura* (*The University of Tokyo, **Japan Science and Technology Agency, ***University of Bialystok)
- We-P-18 Inertia and chiral edge modes of a skyrmion magnetic bubble
B. Krüger, I. Makhfudz*, O. Tchernyshyov* (Johannes Gutenberg University Mainz, *Johns Hopkins University)
- We-P-19 Ultrafast heat pulse magnetization switching near compensation composition in GdFeCo
H. Yoshikawa, S. Kogure, T. Sato, A. Tsukamoto, A. Itoh (Nihon University)
- We-P-20 Three dimensional control of magnetic oscillations in YMnO₃ by light pulses
T. Satoh^{1), 2)}, R. Iida¹⁾, T. Higuchi³⁾, M. Fiebig⁴⁾, T. Shimura¹⁾
(¹⁾The University of Tokyo, ²⁾Japan Science and Technology Agency, ³⁾Max Planck Institute of Quantum Optics, ⁴⁾Eidgenössische Technische Hochschule Zürich)

We-P-21 Ultrafast spin dynamics in highly anisotropic FePt

J. J. Becker, D. Weller*, A. Kirilyuk, J. C. Maan, P. C. M. Christianen, Th. Rasing, A. V. Kimel
(Radboud University Nijmegen, *HGST)

We-P-22 Spectroscopic study of magnetization dynamics in bismuth iron garnet

B. Koene, M. Savoini, Th. Rasing, A. Kirilyuk, M. Deb*, E. Popova*, N. Keller*
(Radboud University Nijmegen,
*Centre national de la recherche scientifique - Université Versailles Saint Quentin)

We-P-23 Fabrication and characterization of magneto-optical hybrid structures

K. Nishibayashi, H. Yoneda*, K. Kuga**, H. Munekata (Tokyo Institute of Technology,
*University of Electro-Communications, **Japan Broadcasting Corporation)

We-P-24 Numerical analysis on spin wave based nonvolatile parallel logic devices

Y. Urazuka, S. Oyabu, H. Chen, B. Peng, H. Otsuki, T. Tanaka, K. Matsuyama (Kyushu University)

We-P-25 Design of high efficient plasmonic waveguide and antenna for thermally assisted magnetic recording

K. Tamura, Y. Ashizawa, S. Ohnuki, K. Nakagawa (Nihon University)

We-P-26 FDTD simulation for polarization state of scattered light in apertureless SNOM

Y. Cai, Q. Meng, A. Emoto*, T. Shioda**, H. Ono, T. Ishibashi (Nagaoka University of Technology,
*National Institute of Advanced Industrial Science and Technology, **Saitama University)

We-P-27 Parallel logic-in-memory architecture implemented with spin waves and domain walls

Y. Urazuka, T. Tanaka, K. Matsuyama (Kyushu University)

We-P-28 Improvement of diffraction efficiency of volumetric magnetic holograms with magnetophotonic crystals

R. Isogai, N. Sagara, T. Goto, Y. Nakamura, P. B. Lim, M. Inoue (Toyohashi University of Technology)

We-P-29 Improvement of diffraction efficiency with multilayered structure for hologram memory

N. Sagara, R. Isogai, T. Goto, P. B. Lim, H. Takagi, Y. Nakamura, M. Inoue
(Toyohashi University of Technology)

11:45 ~ 13:15 Lunch

We-01 New Recording Media and Devices

13:15 ~ 13:45 We-01-01

Fabrication of (001) continuous and nanostructured FePt films
L. W. Wang, J. W. Liao, C. H. Lai (National Tsing Hua University)

13:45 ~ 14:15 We-01-02

High anisotropy equiatomic CoPt thin films in hcp phase
S. N. Piramanayagam, B. Varghese, H. K. Tan, Y. Yang, I. Okamoto*
(Data Storage Institute, *Western Digital)

14:15 ~ 14:45 We-01-03

Multi-bit operations in vertical spintronic shift registers
R. P. Cowburn (Cambridge University)

14:45 ~ 15:00 Coffee Break

We-02 New Materials

15:00 ~ 15:30 We-02-01

Solution-processed organic spin-charge converter
K. Ando (Keio University)

15:30 ~ 16:00 We-02-02

Electric field induced magnetization reorientation in strain coupled artificial multiferroic nanostructures

M. Buzzi*, R.V. Chopdekar*, J. L. Hockel**, A. Bur**, T.Wu**, N. Pilet*, P.Warnicke*, G. P. Carman**, L. J. Heyderman*,***, F. Nolting*

(*Paul Scherrer Institut, **University of California, ***Eidgenössische Technische Hochschule Zürich)

16:00 ~ 16:15 We-02-03

High perpendicular magnetic anisotropy in cobalt ferrite thin films

E. Kita, T. Niizeki, K. Z. Suzuki, A. Kikitsu*, J. Inoue, H. Yanagihara

(University of Tsukuba, *Toshiba Corporation)

16:15 ~ 16:30 We-02-04

Electric field effect of magnetic domains in patterned-ferromagnetic / piezoelectric structures

E.Wada, H. Kojima, M. Itoh, T. Taniyama (Tokyo Institute of Technology)

16:30 ~ 16:45 Coffee Break

We-03 Dynamics and Imaging III

16:45 ~ 17:15 We-03-01

Femtosecond control of magnetism at the nanoscale

M. Savoini (Radboud University Nijmegen)

17:15 ~ 17:30 We-03-02

Layer-specific measurement of ultrafast spin dynamics in GdFeCo double layer with dielectric interlayer

T. Sato, R. Shimizu, A. Tsukamoto, A. Itoh (Nihon University)

17:30 ~ 18:00 We-03-03

Correlated velocity and domain wall spin structure oscillations

M. Klaui (Johannes Gutenberg-Universität Mainz)

18:00 ~ 18:30 Best Poster Award Ceremony and Photograph

19:00 ~ 21:00 Banquet

Dec. 5 (Thu.)

Th-01 Out-of-the-box MORIS

9:00 ~ 9:30 Th-01-01

Unidirectional spin-wave heat conveyer

T.An^{1), 2)}, K. Uchida^{1), 2)}, K. Yamaguchi^{1), 2)}, K. Harii^{2), 3)}, J. Ohe^{2), 4)}, Y. Kajiwara^{1), 2)}, H. Adachi^{2), 3)}, B. Hillebrands⁵⁾, S. Maekawa^{2), 3)}, and E. Saitoh^{1), 2), 3)}

(¹⁾Tohoku University, ²⁾Japan Science and Technology Agency, ³⁾Japan Atomic Energy Agency, ⁴⁾Toho University, ⁵⁾Technische Universität Kaiserslautern)

9:30 ~ 10:00 Th-01-02

Magnetism on a length scale shorter than that of the exchange interaction

A. Kirilyuk (Radboud University Nijmegen)

10:00 ~ 10:30 Th-01-03

L. Bi, T. X. Huang, K.Y. Shui, C. Liu, J. Qin, Y. Zhang, J. L. Xie, L. J. Deng, J. Hu*, P. Jiang**, D. H. Kim**,
G. F. Dionne**, L. C. Kimerling**, C.A. Ross**

(University of Electronic Science and Technology of China, *University of Delaware,
**Massachusetts Institute of Technology)

10:30 ~ 10:45 Th-01-04

Electrical helicity switching of circular polarized light in a spin-LED with two injectors

N. Nishizawa, K. Nishibayashi, H. MuneKata (Tokyo Institute of

Technology) 10:45 ~ 11:00 Coffee Break

Th-02 MO Phenomena and Devices

11:00 ~ 11:30 Th-02-01

Ultrafast acoustics in hybrid magnetic nanostructures

V. Temnov (Centre National de la Recherche Scientifique, Université du Maine)

11:30 ~ 12:00 Th-02-02

Plasmon-boosted magneto-optical effects

V. I. Belotelov*,**, A. N. Kalish*,**, A. K. Zvezdin**,*** (*Lomonosov Moscow State University,
Russian Quantum Centre, *Russian Academy of Sciences)

12:00 ~ 12:15 Th-02-03

High brightness magneto-optical three dimensional displays using magnetophotonic crystal

K. Nakamura, K. Matsugami, T. Goto, H. Takagi, P. B. Lim, M. Inoue
(Toyohashi University of Technology)

12:15 ~ 12:30 Th-02-04

New design of optical isolator utilizing surface plasmons

V. Zayets, H. Saito, K. Ando, S. Yuasa, T. Kaihara*, H. Shimizu*, A. Baryshev**, T. Matsui
(National Institute of Advanced Industrial Science and Technology,

*Tokyo University of Agriculture and Technology, **Toyohashi University of

Technology) 12:30 ~ 14:00 Lunch

Th-03 Ultra-fast Phenomena

14:00 ~ 14:30 Th-03-01

Speed limit of FePt spin dynamics on femtosecond timescales

M. Münzenberg (University Göttingen) 14:30 ~ 15:00 Th-03-02

Nanoscale spin reversal following ultrafast laser excitation in ferrimagnetic GdFeCo

C. E. Graves^{1, 2}, A. H. Reid^{2, 3}, T. Wang^{1, 2}, B. Wu^{1, 2}, S. de Jong², I. Radu³, M. Messerschmidt²,
R. Coffee², M. Bionta², S.W. Epp⁴, R. Hartmann⁵, A. Tsukamoto⁶, J. J. Turner²,

W. F. Schlotter², Y. Acremann⁷, A. V. Kimel³, A. Kirilyuk³, Th. Rasing³, J. Stöhr²,

A. O. Scherz², H.A. Dürr² (¹Stanford University, ²SLAC National Accelerator Laboratory,

³Radboud University Nijmegen, ⁴Center for Free-Electron Laser Science,

⁵PNSensor, ⁶Nihon University, ⁷Eidgenössische Technische Hochschule Zürich)

15:00 ~ 15:30 Th-03-03

Models of ultrafast heat-driven magnetization reversal

U. Atxitia*,** J. Barker*, T.A. Ostler*, R.F.L. Evans*, O. Chubykalo-Fesenko***, R.W.

Chantrell* (*The University of York, **Universidad del Pais Vasco,

***Consejo Superior de Investigaciones Científicas)

15:30 ~ 15:50 Closing Remarks

Akira Kiki