

# MORIS 2019

## TIME SCHEDULE

	June 23 (Sun.)	June 24 (Mon.)	June 25 (Tue.)	June 26 (Wed.)
9:00		Opening Remarks 8:45 - 9:00		
9:30		Caroline A. Ross	Chiara Ciccarelli	Jaroslav Hamrle
10:00		Yosuke Nakata	Ricardo C. Sousa	Roman Pisarev
10:30		Lei Bi	Atsufumi Hirohata	Ademir Aleman
11:00		Liudmila Alyabyeva	Martin Zahradnik	Koki Watanabe
11:30		Stefan Visnovsky	Hikaru Nomura	Victor Belyaev
12:00		Coffee Break 10:45 - 11:15	Coffee Break 10:45 - 11:15	Coffee Break 10:30 - 11:00
12:30		Kyung-jing Lee	Tomas Jungwirth	Katrin Schultheiß
13:00		Jakub Zázvorka	Petr Němec	Masashi Iwaba
13:30		P. N. Skirdkov	Marcin Bialek	Igor Turčan
14:00		Nozomi Nishizawa	Jakub Zelezny	Maciej Krawczyk
14:30	Opening Remarks - M. Veis Tutorial 1 Stephane Mangin <i>All-Optical Magnetization Switching in Spin-Valve Structure Mediated by Spin-Polarized Hot Electron Transport</i>	Lunch Time 12:30 - 13:45	Lunch Time 12:30 - 13:45	Lunch Time 12:15 - 13:30
15:00	Coffee Break 15:30 - 15:45	Stefano Bonetti	Poster session Tu-P 13:45 - 15:30 (Refreshment)	Karel Carva
15:30	Tutorial 2 Geoffrey S.D. Beach <i>Magnetic Skyrmions: From Topology to Technology</i>	Tetsuya Nakamura	Christoph Vogler	Qi Zhang
16:00	Oleg Tretyakov	Timo Kuschel	Jakob Walowski	Joerg Wunderlich
16:30	Move to Get Together	Kohei Yamamoto	Warunee Tipcharoen	Leandro Salemi
17:00	Get Together 18:00 - 20:00	Coffee Break 15:00 - 15:30	Nuttapon Chaiduangstri	Guangqiao Li
17:30		Andrzej Stupakiewicz	Coffee Break 16:45 - 17:15	Closing Remarks 14:45 - 15:00 Prof. Kato
18:00		Ilie Radu	Nobuaki Kikuchi	
18:30		Vladimir Belotelov	Hiroyuki Awano	
19:00		Anna Gatilova	Wangzhen Zhao	
19:30		Tomas Janda	Mikhail Logunov	
20:00		Kihiro Yamada	Special Talk - Norio Ota 18:30 - 18:50	
20:30		Poster session Mo-P 17:00 - 18:45 (Refreshment)	Award Ceremony & Photograph 18:50 - 19:05	
21:00			Move to Conference Dinner	
21:30			Conference Dinner 19:15 - 21:45 Municipal House Pilsen restaurant	

# TECHNICAL PROGRAM

## Sunday 23.6.2019

13:50-14:00 Martin Veis  
Charles University

**T** **Tutorial Seminars** *Chair: Arata Tsukamoto*

14:00-15:30 Tutorial 1  
*All-Optical Magnetization Switching in Spin-Valve Structure  
Mediated by Spin-Polarized Hot Electron Transport*  
S. Iihama, Y. Xu, M. Deb, G. Malinowski, M. Hehn, J. Gorchon,  
E. E. Fullerton, and S. Mangin

15:30-15:45 *Coffee Break*

15:45-17:15 Tutorial 2  
*Magnetic Skyrmions: From Topology to Technology*  
Geoffrey S.D. Beach

17:15-17:45 We-03-1 (moved)  
*Antiferromagnetic Spintronics with (Anti)Skyrmions and Bimerons*  
O. A. Tretiakov

18:00-20:00 Get Together

# Monday 24.6.2019

## Opening Remarks

- 8:45-9:00      Martin Veis  
Charles University
- Mo-01      Magneto-optical Phenomena and Devices I & Optics and Photonics**  
*Chair: Martin Veis*
- 9:00-9:30      Mo-01-1  
*Ferrimagnetic Garnet Thin Films for Magneto-optics and Spintronics*  
C. A. Ross, T. Fakhrul, Y. Zhang, Q. Du, L. Beran, S. Tazlaru, E. Rosenberg, C. O. Avci, G. S. D. Beach, M. Veis, L. Bi, and J. Hu
- 9:30-10:00      Mo-01-2  
*Realization of Topological Tamm States by Thouless Pumping*  
Y. Nakata, Y. Ito, Y. Nakamura, and R. Shindou
- 10:00-10:15      Mo-01-3  
*Silicon Integrated Magnetoplasmonic Metasurfaces Using Low Loss Ce:YIG Thin Films*  
J. Qin, R. Yang, T. Kang, L. Deng, J. Hu and L. Bi
- 10:15-10:30      Mo-01-4  
*Terahertz Soft Mode Pecularity in Barium-Lead Hexaferrite*  
L. Alyabyeva, V. Torgashev, D. Vinnik, A. Prokhorov, A. Ahmed, M. Dressel, B. Gorshunov
- 10:30-10:45      Mo-01-5  
*Nonreciprocal Propagation in Optical Fibers*  
Š. Višňovský
- 10:45-11:15      *Coffee Break*
- Mo-02      New Concepts and New Materials / Devices I**  
*Chair: Atsufumi Hirohata*
- 11:15-11:45      Mo-02-1  
*Ferrimagnetic Spintronics*  
K.-J. Lee
- 11:45-12:00      Mo-02-2  
*Skyrmion Interactions in an Ordered Lattice State*  
J. Zázvorka, N. Kerber, F. Dittrich, K. Raab, R. Gruber, M. Vafaei, K. Litzius, P. Virnau, K. Bindera, M. Kläui

12:00-12:15 Mo-02-3  
*Spin Pumping, Spin Seebeck Effect and Corresponding Inverse Spin Hall Effect in Permalloy Dots-Topological Insulator Bilayers*  
P. N. Skirdkov, M. D. Davydova, P. V. Penkina, M.A. Kozhaev, J. G. Lin, J. C. Wu, J. C. A. Huang, K. A. Zvezdin, V.I. Belotelov, and A. K.Zvezdin

12:15-12:30 Mo-02-4  
*Electrical Circular Polarization Switching at Room Temperature with Spin-Polarized Light Emitting Diodes*  
N. Nishizawa and H. Munekata

12:30-13:45 Lunch

**Mo-03**                      **Magnetic X-ray Application**                      Chair: Peter Oppeneer

13:45-14:15 Mo-03-1  
*Terahertz Spin Dynamics*  
S. Bonetti

14:15-14:30 Mo-03-2  
*Study of Coercivity Mechanism in Isotropic and Anisotropic Nd-Fe-B Sintered Permanent Magnets by Applying Magnetic Domain Observation Using Synchrotron X-Rays*  
T. Nakamura, J. Kida, Y. Matsuura, K. Toyoki, Y. Kotani, R. Maruyama, K. Uezato, K. Ishigami, K. Kajiwara, K. Sumitani, and R. Tamura

14:30-14:45 Mo-03-3  
*Manipulation of Platinum Magnetism by Variation of Adjacent Magnetic 3D Metal Alloy Thin Films*  
T. Kuschel

14:45-15:00 Mo-03-4  
*Element Specific Observation of Photo-Induced Ultrafast Magnetization Dynamics with Soft X-Ray Free Electron Laser*  
K. Yamamoto, S. E. Moussaoui, Y. Hirata, S. Yamamoto, H. Wadati, I. Matsuda

15:00-15:30 Coffee Break

**Mo-04**                      **Ultrafast Dynamics / Reversal**                      Chair: Theo Rasing

15:30-15:45 Mo-04-1  
*Tunable All-Optical Magnetic Recording in Iron Garnet*  
A. Stupakiewicz, A. Frej, K. Szerenos, A. Kirilyuk, A. Kimel

- 15:45-16:00 Mo-04-2  
*Ultrafast Magnetic Recording with Terahertz Light*  
I. Radu, M. Shalaby, M. Hennecke, D. Engel, C. von Korff Schmising, A. Tsukamoto, C. P. Hauri, S. Eisebitt
- 16:00-16:15 Mo-04-3  
*Nanostructured Magnetic Dielectrics for Ultrafast Magnetization Control by fs-Laser Pulses*  
A. I. Chernov, M. A. Kozhaev, D. O. Ignatyeva, M. Levy, D. Karki, A. N. Shaposhnikov, V. I. Belotelov
- 16:15-16:30 Mo-04-4  
*Far and Mid-Infrared Excitation of Large Amplitude Spin Precession in Ferromagnetic Semiconductor InMnAs*  
A. Gatilova, E. Mashkovich, K. Grishunin, A. Pogrebna, R. V. Mikhaylovskiy, Th. Rasing, P. Christianen, H. Munekata and A. V. Kimel
- 16:30-16:45 Mo-04-5  
*Spin-Polarized Ultrafast Current Pulses in a Vertical Ferromagnet-Photodiode Heterostructure*  
T. Janda, T. Ostatnický, P. Němec, Z. Šobáň, V. Hills, and J. Wunderlich
- 16:45-17:00 Mo-04-6  
*Efficient All-Optical Helicity-Dependent Magnetization Switching in a Ferromagnet with Dual Laser Pulses*  
K. T. Yamada, K. H. Prabhakara, T. Li, F. Ando, S. Semin, T. Ono, A. Kirilyuk, A. V. Kimel, Th. Rasing

17:00-18:45 **Poster Session (Mo-P)**

**Magneto-optical Phenomena and Devices**

- Mo-P-01 *Photo-Induced and Magneto-Optical Phenomena in Europium Chalcogenides EuX (X = O, S, Se, Te)*  
V. V. Pavlov
- Mo-P-02 *Magneto-Optical Spectroscopy by Polarization Modulation Method Using a Multichannel Spectrometer*  
S. Wang, M. Nishikawa, T. Ishibashi and K. Sato
- Mo-P-03 *Random Number Generation Using Magnetic Domain Images of Magneto-Optical Materials*  
T. Kawashima, S. Mito

- Mo-P-04 *Magneto-Optical Effect in Magnetic Layer / Heavy Metal Layer Hetero-Structure*  
K. Matsumoto, S. Sumi, K. Tanabe, and H. Awano
- Mo-P-05 *Low-Temperature Fabrication of Bi-Substituted Neodymium Iron Garnet Films by an Excimer Laser Assisted Metal Organic Deposition Process*  
M. Nishikawa, H. Aiba, M. Kawahara, T. Nakajima, T. Tsuchiya, T. Ishibashi
- Mo-P-06 *Influence of Epitaxial Strain on Electronic Transitions In  $La_{2/3}Sr_{1/3}MnO_3$  Ultrathin Films*  
M. Zahradník, T. Maleček, T. Maroutian, G. Kurij, G. Agnus, P. Lecoeur, L. Beran, M. Veis
- Mo-P-07 *Magneto-Optical Spectroscopy of Ferromagnetic Fe-Mn-Ga Magnetic Shape Memory Heusler Alloys*  
D. Kral, L. Beran, R. Antos, J. Hamrle, O. Perevertov, M. Rames, O. Heczko, M. Veis
- Mo-P-08 *Magneto-Optic Light Deflector Controlled by the State of Stepping Motors*  
K. Shimura, S. Mito
- Mo-P-09 *Origin of Optical and Magneto-Optical Properties of  $Tb_3Fe_5O_{12}$  in Nir/Vis/UV Region*  
L. Beran, E. Rosenberg, J. Šetina, A. Quindeau, C. A. Ross, M. Veis
- Mo-P-10 *Large Magneto-Optical Response of  $Nd_{0.5}Bi_{2.5}IGG$  Ultra Thin Film*  
J. Šetina, L. Beran, M. Veis, T. Ishibashi
- Mo-P-11 *Magnetic Polarons Revealing by Photo-Induced Kerr Effect in Bulk EuS*  
V. N. Kats, P. A. Usachev, V. V. Kaminskii, V. V. Pavlov
- Mo-P-12 *Strong Quadratic Magneto-Optical Response of Ultrathin YIG Film at Low Temperatures*  
E. Schmoranzero, T. Janda, P. Nemeč, Z. Soban, H. Reichlova, M. Munzenberg, E.-J. Guo, M. Klaui
- Mo-P-13 *Magneto-Optical Nonreciprocal Metasurfaces Using All Dielectric Resonances*  
J. Qin, W. Yang, J. Long, Q. Du, L. Deng, J. Hu and L. Bi

- Mo-P-14      *Sensitivity Tuning of Magnetic Field Sensor Based on Magnetoplasmonic Crystal*  
D. V. Murzin, V. K. Belyaev, V. Novosad, A. A. Grunin, A. A. Fedyanyn, V. V. Rodionova
- Mo-P-15      *Quadratic Magneto-optic Kerr Effect of Cubic (011) and Cubic (111) Thin Films*  
R. Silber, J. Hamrle, T. Kuschel
- Mo-P-16      *Theoretical Study on The Enhancement of Magneto-Optic Kerr Effect Using Silica Thin Film*  
T. Tachizaki and H. Mizuno
- Mo-P-17      *Magnetic Fields to Focalize and Accelerate Ions Produced by ns Laser-Generated Plasmas*  
L. Torrisi, G. Costa
- Mo-P-18      *Optical and Magneto-Optical Spectroscopy of Co Doped Ni-Mn-Ga Films*  
L. Nowak, D. Král, S. Schwabe, A. Diestel, K. Nielsch, O. Heczko, L. Beran, S. Fähler, M. Veis
- Mo-P-33      *Magnetocrystalline Anisotropy of Mn Induced Bi<sub>2</sub>X<sub>3</sub> (X=Se, Te) Heterostructure: DFT Study (Post-Deadline)*  
S. A. Khan, O. Caha, O. Rader, G. Springholz, J. Minár

#### **Ultrafast Dynamics / Reversal**

- Mo-P-19      *Laser-Induced Spin Currents and Spin Transfer Torque in Noncollinear Magnetic Structures*  
P. Baláž, K. Carva, U. Ritzmann, J. Hurst, M. Zwierzycki, P. Maldonado, P. M. Oppeneer
- Mo-P-20      *Ultrafast Dynamics of the Induced and Intrinsic Magnetic Moments in Ferromagnetic Alloys*  
I. Vaskivskiy, R. S. Malik, J. Brock, E. Fullerton, and H. Durr
- Mo-P-21      *All-Optical Magnetization Switching In GdFeCo on Electronic Heat Conversion Layers*  
H. Yoshikawa, Y. Kasatani, and A. Tsukamoto
- Mo-P-22      *Ultrafast Excitation of Coherent Magnon and Phonon in Multiferroic Bismuth Ferrite*  
K. Matsumoto, P. Khan, M. Kanamaru, T. Ito, T. Satoh

- Mo-P-23 *Electrical Detection of Single Shot All-Optical Magnetization Switching in Ferrimagnetic GdFeCo Alloy*  
Y. Kasatani, H. Yoshikawa and A. Tsukamoto
- Mo-P-24 *Ultrafast Laser-Induced Spin-Reorientation Transition in Magnetite Fe<sub>3</sub>O<sub>4</sub>*  
I. O. Karpovsky, D. L. Kazenwadel, A. M. Balbashov, A. M. Kalashnikova
- Mo-P-25 *Light Switching of Magnetization in Europium Selenide*  
P.A. Usachev, X. Gratens, V. A. Chitta, G. Springholz, and A.B. Henriques
- Mo-P-26 *Magnetic Moment Generation in Small Gold Nanoparticles via the Plasmonic Inverse Faraday Effect (Post-Deadline)*  
J. Hurst and P. M. Oppeneer

### Optics and Photonics

- Mo-P-27 *Optical Properties and Solar Energy Conversion of a MoS<sub>2</sub>/TiO<sub>2</sub> Heterojunctions*  
Ł. Jarośniński, K. Kollbek, A. Tąta, E. Proniewicz and M. Przybylski
- Mo-P-28 *Surface Plasmon Polariton Device for Spin Wave Excitation*  
K. Kimura, Y. Ashizawa, S. Ohnuki, and K. Nakagawa
- Mo-P-29 *Design of Film Structure for a Fiber Type Magnetic Sensor Using Magneto-Plasmonic Effect*  
A. Nakayama, Y. Ashizawa, and K. Nakagawa
- Mo-P-30 *Annealing Temperature Dependence on Magneto-Plasmonic Effect of Ag-Co Single Layer Films*  
Y. Ashizawa, K. Bando, S. Ohnuki, and K. Nakagawa
- Mo-P-31 *Coupled Wave Method with Modified Boundary Conditions for Diffraction Grating Calculations*  
R. Antoš, M. Veis

### Magnetic X-ray Applications

- Mo-P-32 *Spatially-, Temporally-, and Elementally-Resolved Imaging of Magnetization Dynamics with X-Ray Magnetic Circular Dichroism*  
N. Kikuchi, T. Yomogita, K. Sato, S. Okamoto, O. Kitakami, H. Osawa, M. Suzuki, Y. Kotani, K. Toyoki, and T. Nakamura



## Tuesday 25.6.2019

Tu-01

### New Concepts and New Materials / Devices II

*Chair: Alexey Kimel*

9:00-9:30

Tu-01-1

*Spin Pumping into Superconductors Provides Evidence for Superconducting Pure Spin Currents*

C. Ciccarelli

9:30-10:00

Tu-01-2

*Scaling the Spintronics Memory Function with Perpendicular Anisotropy*

R. C. Sousa, N. Perrissin, L. Tillie, J. Chatterjee, S. Lequeux, N. Strelkov, L. Vila, L. Buda-Prejbeanu, S. Auffret, I.L. Prejbeanu, B. Dieny

10:00-10:15

Tu-01-3

*Thermally-Assisted Magnetisation Reversal in A Giant Magnetoresistive Junction*

W. Frost, T. Seki, T. Kubota, R. Ramos, E. Saitoh, K. Takanashi and A. Hirohata

10:15-10:30

Tu-01-4

*Magnetization Dynamics in SrRuO<sub>3</sub> Thin Films*

M. Zahradník, K. Uhlířová, T. Maroutian, M. Veis, G. Kurij, G. Agnus, Ph. Lecoeur

10:30-10:45

Tu-01-5

*Dipole Coupled Nanomagnet Reservoir with Multibit Input Data*

H. Nomura, K. Tsujimoto, M. Goto, N. Samura, R. Nakatani, Y. Suzuki

10:45-11:15

*Coffee Break*

**Tu-02                    Antiferromagnetic Materials and Antiferromagnetic Spintronics I**  
*Chair: Takuya Satoh*

11:15-11:45    Tu-02-1  
*Antiferromagnetic Spintronics: from Terahertz to Neuromorphics*  
T. Jungwirth

11:45-12:00    Tu-02-2  
*Pump-Probe Magneto-Optical Studies of Compensated Antiferromagnet CuMnAs*  
P. Němec, V. Saidl, M. Surýnek, and T. Ostatnický

12:00-12:15    Tu-02-3  
*Magnon-Photon Coupling in Ferrites*  
M. Białek, A. Magrez and J.-Ph. Ansermet

12:15-12:30    Tu-02-4  
*Spin Currents in Collinear and Non-Collinear Antiferromagnets*  
J. Železný

12:30-13:45    *Lunch*

13:45-15:30    **Poster Session (Tu-P)**

**Energy Assisted Magnetic Recording**

Tu-P-01            *Effects of Dot-Position of BPM, Thermal Distribution, and Gradient of Head-Field on Bit Error Rate for HAMR*  
F. Akagi and N. Matsushima

Tu-P-02            *Transient of the Growth of Magnetization Precession in Unstable Regime*  
N. Kitajima, G. Okano, and Y. Nozaki

Tu-P-03            *Magnetic Write Field Characterization in Heat-Assisted Magnetic Recording Systems*  
P. Kampun, L. Lekawat, and D. Tongsoomporn

**New Recording Media / Nano Magnetic Materials**

Tu-P-04            *Observation of Thermal Distribution in Magnetic Wire Under Current Injection*  
T. Sawa, S. Sumi, P. Thach, K. Tanabe and H. Awano

- Tu-P-05      *Electric-Field-Assisted Spin Hall Magnetization Switching in MgO/Co/Pt Trilayers*  
K. Kunishima, X. Zhou, D. Oshima, T. Kato, S. Iwata
- Tu-P-06      *Surface Roughness and Morphology of Garnet Films Made by MOD Method*  
K. Murata, Y. Ashizawa, S. Ohnuki, and K. Nakagawa
- Tu-P-07      *Photovoltage Spectroscopy of Spin Excitation of Ferromagnetic Disk at Low Temperature in Two Dimensional Electron Gas Systems*  
N. K. Almulhem, M. E. Stebliy, A. Nogaret, J. C. Portal, A. S. Samardak, H. E. Beere, and D. A. Ritchie
- Magnonics**
- Tu-P-08      *Optical Excitation of Spin Waves with an Arbitrary Distribution*  
M. A. Kozhaev, A. I. Chernov, I. V. Savochkin, I. Yu. Eremchev, A. K. Zvezdin, V. I. Belotelov
- Tu-P-09      *Flat Bands, Indirect Gaps, and Unconventional Spin-Wave Behavior Induced by a Periodic Dzyaloshinskii-Moriya Interaction*  
R. Gallardo, D. Cortés-Ortuño, T. Schneider, A. Roldán-Molina, F. Ma, K. Lenz, H. Fangohr, J. Lindner, P. Landeros
- Tu-P-10      *Time-Domain Detection of Multiple Spin-Wave Solitons Generation*  
M. Kawase, M. Iwaba, and K. Sekiguchi
- Tu-P-11      *Magnon Raman Scattering in BiFeO<sub>3</sub>*  
M. Kichise, Y. Fujii, A. Koreeda, T. Ito, T. Satoh
- Tu-P-12      *Design of Metalens for Spin Waves*  
M. Zelent, M. Mailian, V. Vashistha, P. Gruszecki, O.Yu. Gorobest, Yu.I. Gorobest, M. Krawczyk
- Tu-P-13      *Magnon Raman Scattering in Y<sub>3</sub>Fe<sub>5</sub>O<sub>12</sub>*  
W.-H. Hsu, M. Kichise, Y. Fujii, A. Koreeda, T. Satoh
- Tu-P-14      *Electromagnons and Origin of Giant Magnetoelectric Coupling in Multiferroics with Y- and Z-Type Hexaferrite Structure*  
S. Kamba, J. Vít, F. Kadlec, C. Kadlec, F. Borodavka, and Y. S. Chai

**New Concepts and New Materials / Devices**

- Tu-P-15 *Magneto-Optical Study of Helical Domain Structures in Cylindrical Microwires*  
A. Chizhik, A. Zhukov, J. Gonzalez, P. Gawroński, A. Stupakiewicz
- Tu-P-16 *Spin Orbit Torques in Ferrimagnetic GdFeCo with Various Compositions*  
K. Kawakami, D. Oshima, T. Kato, S. Iwata
- Tu-P-17 *Current-Induced Domain Wall Motion Driven by Spin Orbit Torque in Ferrimagnetic GdFeCo Wires*  
P. V. Thach, A. Takahashi, S. Sumi, H. Awano
- Tu-P-18 *Influence of Perpendicular RF Fields in Spin Torque FMR Measurement*  
T. Horaguchi, Y. Nozaki
- Tu-P-19 *Imparting Memory Functionality to Planer Wave-Guide Structures with Photo-Magnetic Materials*  
H. Munekata, S. Ogawa, K. Michihiro, K. Nishibayashi, and N. Nishizawa
- Tu-P-20 *Switching of Skyrmion Chirality by Local Heating*  
Y. Nakatani, K. Yamada, A. Hirohata
- Tu-P-21 *Acceleration of Resonance State Calculation Using the LLG Equation*  
C. Mitsumata, S. Tomita, and K. Ono
- Tu-P-22 *Ferromagnetic Resonance of a [GeTe / Sb<sub>2</sub>Te<sub>3</sub>] / Py Super Lattice*  
S. Sumi, Y. Hirano, and H. Awano
- Tu-P-23 *Structure and Magnetic Properties of FeMnGaN Alloy Thin Films*  
K. Ohwada, M. Doi and T. Shima
- Tu-P-24 *(001) Oriented CoFe<sub>2</sub>O<sub>4</sub> Thin Films on Glass and Si Substrates Prepared by MOD Method*  
K. Yasuda, M. Nishikawa and T. Ishibashi
- Tu-P-25 *An Application of Spin-LED: Unstaining and Non-Invasive Cancer Detection Using Circularly Polrized Light*  
A. Hamada, H. Munekata and N. Nishizawa

Tu-P-26 *Comparison of Properties Between Pr-Fe-B and Nd-Fe-B Thick-Film Magnets Applied to MEMS*  
M. Nakano, M. Omoto, K. Takashima, A. Yamashita, T. Yanai, A. Shinshi, and H. Fukunaga

Tu-P-27 *"Hot" Electrons Lead to Record Thermionic Emission in LaB<sub>6</sub>*  
L. Alyabyeva, E. Zhukova, B. Gorshunov, M. Dressel, G. Komandin, M. Belyanchikov, Z. Bedran, A. Muratov, Yu. Aleshchenko, M. Anisimov, N. Shitsevalova, A. Dukhnenko, V. Filipov, V. Voronov, N. Sluchanko

Tu-P-28 *Infrared Spectrum of Graphene Compared with Fullerene as Astronomical Carbon Dust*  
N. Ota

### **Antiferromagnetic Materials and Antiferromagnetic Spintronics**

Tu-P-29 *Magnetolectric Excitations in Polar Antiferromagnetic Nickel Tellurates Substituted by Mn and Co*  
C. Kadlec, S. Skiadopoulou, M. Retuerto, F. Kadlec, F. Borodavka, M. Mišek, M. Greenblatt and S. Kamba

Tu-P-30 *Magneto-Optical Spectra of a Frustrated Antiferromagnet: Theory and Experiment*  
J. Zemen

Tu-P-31 *Rare Earth (RE)-Transition Metal (TM) Ferrimagnets for Spintronics*  
R. Ch. Bhatt, L.-X. Ye, Y.-C. Luo and T.-H. Wu

Tu-P-32 *High-Temperature Regeneration of Perpendicular Exchange Bias in Pt/Co/Au/Cr<sub>2</sub>O<sub>3</sub>/Pt Stacked Films*  
Y. Shiratsuchi, D. Tokunaga, R. Nakatani

Tu-P-33 *The Magnetic Order of Antiferromagnetic Mn<sub>3</sub>NiN Thin Films Under Biaxial Strain*  
D. Boldrin, F. Johnson, A. P. Mihai, B. Zou, J. Zemen, J. Wunderlich, W. R. Branford and L.F. Cohen

Tu-P-34 *Photocurrents in 3D Topological Insulator Hall Bar and Nanowire Devices*  
N. Meyer, T. Schumann, E. Schmoranzzerová, K. Geishendorf, G. Mussler, J. Walowski, P. Nemeč, A. Thomas, K. Nielsch, D. Grützmacher, M. Münzenberg

**Tu-03****Energy Assisted Magnetic Recording***Chair: Katsuji Nakagawa*

15:30-16:00

Tu-03-1

*Advanced Concepts of High-Density Heat-Assisted Magnetic Recording*Ch. Vogler

16:00-16:15

Tu-03-2

*All-Optical Helicity-Dependent Magnetization Switching of Iron-Platinum Magnetic Recording Media*R. John, J. Walowski, C. Müller, M. Berritta, D. Hinzke, P. Nieve, O. Chubykalo-Fesenko, T. Santos, H. Ulrichs, R. Mondal, P. M. Oppeneer, U. Nowak, J. McCord, M. Münzenberg

16:15-16:30

Tu-03-3

*Transition Jitter and SNR Analysis in HAMR Process Under Impact of Media Hk and Tc Variations*W. Tipcharoen, Ch. Warisarn, and D. Tongsomporn

16:30-16:45

Tu-03-4

*Background Interference Impact of Heat Sink Layer in Heat Assisted Magnetic Recording*N. Chaidangsri, S. Kaitwanidvilai, D. Tongsomporn

16:45-17:15

*Coffee Break***Tu-04****New Recording Media / Nano Magnetic Materials II***Chair: Hermann A. Durr*

17:15-17:45

Tu-04-1

*Microwave Assisted Switching on CoPtCr-Based Granular Media*N. Kikuchi, K. Sato, S. Kikuchi, S. Okamoto, O. Kitakami, T. Shimatsu

17:45-18:00

Tu-04-2

*Does Spin Orbit Torque also Work on Current Driven Domain Wall Motion of Thick GdFeCo (500 nm) Single Layer Magnetic Wire without Heavy Metal Pt Layer?*A. Takahashi, S. Sumi, P. V. Thach, K. Tanabe, Y. Kurokawa and H. Awano

18:00-18:15

Tu-04-3

*Spin Transfer Torque Switching of Hybrid Memory Layers with Low Curie Temperature CoPd/Pd Multilayers*W. Zhao, T. Kato, D. Oshima, Y. Sonobe, S. Takahashi, S. Iwata

- 18:15-18:30 Tu-04-4  
*Precision Deep Layer-By-Layer Etching of Bi-YIG Films*  
M. V. Logunov, S. A. Nikitov, A. I. Stoghii, S. S. Safonov, A. S. Il'in,  
and A. G. Temiryazev
- Tu-SP** **Special Talk** *Chair: Arata Tsukamoto*  
18:30-18:50 *Magnetism and Optics of Graphene Materials in the Astronomical  
Interstellar Space - Celebrating 28 Years Anniversary of Moris  
Conference*  
N. Ota
- 18:50-19:05 Award Ceremony & Photograph
- 19:15-21:45 *Conference Dinner*  
*Pilsen restaurant in Municipal House*

## Wednesday 26.6.2019

### We-01

### Magneto-optical Phenomena and Devices II

Chair: Takayuki Ishibashi

9:00-9:30

We-01-1

*Linear and Quadratic Magneto-optic Spectroscopy on Bcc Fe*  
J. Hamrle

9:30-9:45

We-01-2

*Unconventional Non-Reciprocal Magneto-Optical Effects in a Magnetolectric Antiferromagnet  $\text{CuB}_2\text{O}_4$*   
K. N. Boldyrev, A. D. Molchanova, M. N. Popova, and R. V. Pisarev

9:45-10:00

We-01-3

*Periodically Driven Spinwaves by Ultrafast Laser Pulses with a High Repetition Rate*  
A. Aleman, S. Muralidhar, A. Awad, R. Khymyn, D. Hanstorp and J. Åkerman

10:00-10:15

We-01-4

*A Study on Spectral-Domain Formulation of Electromagnetic Scattering by Defected Grating Made of Anisotropic Materials*  
K. Watanabe

10:15-10:30

We-01-5

*High Sensitive DC Magnetic Field Sensor Based on Magnetoplasmonic Crystal*  
V. K. Belyaev, D.V. Murzin, A. A. Grunin, A. A. Fedyanin, V. V. Rodionova

10:30-11:00

*Coffee Break*

### We-02

### Magnonics

Chair: Roman Antos

11:00-11:30

We-02-1

*How to Generate Whispering Gallery Magnons*  
K. Schultheiss

11:30-11:45

We-02-2

*Shape-Forming of Spin Wave Packets by Dynamic Magnonic Crystal*  
M. Iwaba and K. Sekiguchi



11:45-12:00 We-02-3  
*Uniaxial Magnetic Anisotropy Modulation in Thin Permalloy Films*  
I. Turčan, L. Flajšman, M. Vaňatka, M. Urbánek

12:00-12:15 We-02-4  
*Edge Localised Spin Waves in Antidot Lattices Based on Multilayers with Perpendicular Magnetic Anisotropy*  
S. Pan, R. Szwiercz, S. Mondal, M. Zelent, S. Pal, O. Hellwig,  
M. Krawczyk, and A. Barman

12:15-13:30 *Lunch*

**We-03** **Antiferromagnetic Materials and Antiferromagnetic Spintronics II**  
*Chair: Marcin Bialek*

13:30-13:45 We-03-5  
*Tetragonal vs. Orthorhombic CuMnAs: Phase Stability and the Role of Defects*  
K. Carva, K. Uhlířová, P. Baláž, I. Turek, F. Mácá, J. Kudrnovský,  
V. Drchal

13:45-14:00 We-03-6  
*Efficient Terahertz Radiation from a Single Ferromagnetic Layer*  
Q. Zhang, Z. Luo, H. Li, Y. Yang, X. Zhang, and Y. Wu

14:00-14:15 We-03-2  
*Scanning Magneto-Thermoelectric Imaging of Spin-Orbit Torque Switching in Antiferromagnetic Films*  
J. Wunderlich

14:15-14:30 We-03-3  
*First-Principles Theory of Electrically Induced Magnetization in Noncentrosymmetric Antiferromagnets*  
L. Salemi, M. Berritta, A. K. Nandy, P. M. Oppeneer

14:30-14:45 We-03-4  
*Double Pump THz Emission Spectroscopy of Multiscale Kinetics of the Magnetic Phase Transition in FeRh*  
G. Li, R. Medapalli, R. V. Mikhaylovskiy, Th. Rasing, E.E. Fullerton,  
and A. V. Kimel

**Closing Remarks**

14:45-15:00 Takeshi Kato  
Nagoya University