Joint Conference:
EP2DS-24/MSS-20

E-PS-1 & M-PS-1 Mon. Nov 1, 2021 3:00 PM - 4:45 PM

E-PS-1

[E-PS-1-01] Nuclear Spin Isomer Fluctuation of an Encapsulated H_2O Molecule in a C_{60} Cage

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(1. Institute of Industrial Science, Univ. of Tokyo (Japan), 2. Institute for Chemical Research, Kyoto Univ. (Japan), 3. Institute for Nano Quantum Information Electronics, Univ. of Tokyo (Japan))

[E-PS-1-02] Thermally assisted quadruplet Pauli spin blockade in serial coupled double quantum dots

*Tsuyoshi Hatano[1], Minato Kondo[1], Shusuke Miyota[1], Shinichi Amaha[2], Wataru Izumida[3]
(1. Nihon Univ. (Japan), 2. RIKEN, Center for Emergent Matter Sci. (Japan), 3. Tohoku Univ. (Japan))

[E-PS-1-03] Spatiotemporal evolution of spins with ballistic electron motion in high mobility (001) GaAs/AlGaAs quantum well

*Jun Ishihara[1], Takuya Suzuki[1], Go Kitazawa[1], Yuzo Ohno[2], Kensuke Miyajima[1]
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[E-PS-1-04] Room-temperature spin dynamics in (110) InGaAs quantum wells

*Kyohei Sugaya[1], Koichi Nakanishi[1], Daisuke Iizasa[2], Satoshi Iba[3], Yuzo Ohno[4], Nobuhide Yokota[5], Makoto Kohda[2], Yoshihiro Ishitani[1], Ken Morita[1]
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[E-PS-1-05] Enhanced Zeeman Splitting in a Double-Layer Quantum Point Contact

*Daiju Terasawa[1], Shota Norimoto[2], Tomonori Arakawa[2,3], Meydi Ferrier[4,2], Akira Fukuda[1], Kensuke Kobayashi[2,5], Yoshiro Hirayama[6]
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[E-PS-1-06] Multi-Row Transport in Side-Gated Quantum Point Contacts

*Dmitriy A. Pokhabov[1,2], Arthur G. Pogosov[1,2], Evgeniy Yu. Zhdanov[1,2], Askhat K. Bakarov[1,2], Alexander A. Shklyaev[1,2]
(1. Rzhanov Inst. of Semiconductor Physics (Russia), 2. Novosibirsk State Univ. (Russia))

[E-PS-1-07] Voltage-driven magnetization switching in topological-insulator-based magnetic heterostructures

*Takahiro Chiba[1], Alejandro Osvaldo Leon[2], Takashi Komine[3]
(1. National Inst. of Tech., Fukushima Coll. (Japan), 2. Department of Physics, Univ. Tech. Metropolitana (Chile), 3. Graduate School of Science and Engineering, Ibaraki Univ. (Japan))

[E-PS-1-08] Universal Scaling of Multi-channel Kondo Entanglement at Finite Temperature

*Donghoon Kim[1], Jeongmin Shim[1], H.-S. Sim[1] (1. KAIST (Korea))

[E-PS-1-09] Withdrawn

[E-PS-1-10] Fractional Mutual Statistics on Integer Quantum Hall Edges

*June-Young M. Lee[1], Cheolhee Han[1], Heung-Sun Sim[1]
(1. Korea Advanced Inst. of Sci. and Tech. (Korea))

[E-PS-1-11] Spectroscopic study on electron-hole plasma excited by hot electrons in quantum Hall edge channels

*Kotaro Suzuki[1], Tokuro Hata[1], Yuya Sato[1], Takafumi Akiho[2], Koji Muraki[2], Toshimasa Fujisawa[1] (1. Tokyo Tech (Japan), 2. NTT Basic Res. Lab. (Japan))

[E-PS-1-12] Quantum Dot Pump Coupled with a Single Quantum Hall Edge

*Wanki Park[1], Sung Un Cho[1], Myung-Ho Bae[2,3], H.-S. Sim[1]
(1. Korea Advanced Institute of Science and Technology (Korea), 2. Korea Research Institute of Standards and Science (Korea), 3. University of Science and Technology (Korea))

[E-PS-1-13] Exchange Energy Renormalization in Quantum Hall Ferromagnets with Strong Coulomb Interaction

*Aleksandr B. Vankov[1,2], Igor V. Kukushkin[1,2]
(1. Institute of Solid State Physics RAS (Russia), 2. National Research University Higher School of Economics (Russia))

[E-PS-1-14] Energy Spectrum of HgTe Quantum Wells

*Jan Gospodaric[1], Vlad Dziom[1], Alexey Shuvaev[1], Alena Dobretsova[2,3], Nikolai Mikhailov[2,3], Ze Don Kvon[2,3], Elena Novik[4], Andrei Pimenov[1]
(1. TU Vienna (Austria), 2. Rzhanov Inst. of Semiconductor Physics (Russia), 3. Novosibirsk State Univ. (Russia), 4. TU Dresden (Germany))

[E-PS-1-15] Scattering Anisotropy in HgTe (013) Quantum Wells

*Daniar Azamatovich Khudaiberdiev[1,2], Maxim Leonidovich Savchenko[1,3], Dmitry Andreevich Kozlov[1,2], Ze Don Kvon[1,2], Nikolai Nikolaevich Mikhailov[1,2], Sergey Alekseevich Dvoretsky[1,2]
(1. Rzhanov Institute of Semiconductor Physics (Russia), 2. Novosibirsk State University (Russia), 3. Department of Physics and Astronomy, Purdue University (United States of America))

[E-PS-1-16] Unconventional Reentrant Quantum Hall Effect in a HgTe/CdHgTe Double Quantum Well

*Mikhail Yakunin[1], Sergey Krishtopenko[2], Sergey Podgornykh[1], Mikhail Yakunin Popov[1], Vladimir Neverov[1], Benoit Jouault[2], Wilfried Desrat[2], Frederic Teppe[2], Sergey Dvoretsky[3], Nikolay Mikhailov[3]
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[E-PS-1-17] Orbital-Selective Probing of Hybridized Landau Levels in InAs/InGaSb Quantum Wells

*Hiroshi Irie[1], Takafumi Akiho[1], Koji Onomitsu[1], Koji Muraki[1] (1. NTT BRL (Japan))

[E-PS-1-18] High-Field Charge Transport in InGaAs Nanowires

*Rakesh Rana[1], Leila Balaghi[1,2], Ivan Fotev[1,2], Harald Schneider[1], Manfred Helm[1,2], Emmanouil Dimakis[1], Alexej Pashkin[1]
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[E-PS-1-19] Tunable Zero Modes and Quantum Interferences in Flat-Band Topological Insulators

*Juan Zurita[1], Charles Creffield[2], Gloria Platero[1]
(1. Instituto de Ciencia de Materiales (CSIC) (Spain), 2. Universidad Complutense de Madrid (Spain))

[E-PS-1-20] Fractal defect states in the Hofstadter butterfly

*Yoshiyuki Matsuki[1], Kazuki Ikeda[2], Mikito Koshino[1]
(1. Osaka Univ. (Japan), 2. Res. Inst. for Advanced Materials and Devices, Kyocera Corp. (Japan))

[E-PS-1-21] The effects of disorder in Non-Hermitian skin effect in one dimension

*Yusuke Nakai[1], Nobuyuki Okuma[1], Masatoshi Sato[1] (1. YITP (Japan))

[E-PS-1-22] Control of Topological Edge States in Finite Systems

*Tohru Kawarabayashi[1], Yasuhiro Hatsugai[2]
(1. Toho Univ. (Japan), 2. Univ. of Tsukuba (Japan))

[E-PS-1-23] Multi-orbital nature of topological edge and corner states in black phosphorene

*Masaru Hitomi[1], Takuto Kawakami[1], Mikito Koshino[1] (1. Osaka Univ. (Japan))

[E-PS-1-24] Nodal-line semimetal HMTSF-TCNQ: Anomalous orbital diamagnetism and charge density wave

*Soshun Ozaki[1], Ikuma Tateishi[2], Hiroyasu Matsuura[1], Masao Ogata[1,3], Koichi Hiraki[4,5]
(1. Univ. of Tokyo (Japan), 2. RIKEN Center for Emergent Matter Science (Japan), 3. Trans-scale Quantum Science Inst. (Japan), 4. Fukushima Medical Univ. (Japan), 5. IMR, Tohoku Univ. (Japan))

[E-PS-1-25] Stack and Check: Electronic Raman Spectroscopy Signatures in Bernal, Rhombohedral and Twistronic Graphite

Aitor Garcia-Ruiz[1], Joshua J. P. Thompson[1], Sergey Slizovskiy[2], *Marcin Mucha-Kruczynski[1], Vladimir I. Fal'ko[2] (1. Univ. of Bath (UK), 2. Univ. of Manchester (UK))

[E-PS-1-26] Superconducting Dome with Extended s-wave Pairing in the CuO2 Monolayer Deposited on BSCCO Substrate

*Michal Zegrodnik[1], Pawel Wojcik[1], Jozef Spalek[2]
(1. University of Science and Technology (Poland), 2. Jagiellonian University (Poland))

[E-PS-1-27] Superconducting Dome and Anisotropy of the In-plane Critical Field in a Two-dimensional Electron Gas at the $LaAlO_3/SrTiO_3$ Interface

*Pawel Wojcik[1], Michal Piotr Nowak[1], Michal Zegrodnik[1]
(1. AGH University of Science and Technology in Krakow (Poland))

[E-PS-1-28] Optically induced Spin Current in Monolayer $NbSe_2$

*Ren Habara[1], Katsunori Wakabayashi[1]
(1. Department of Nanotech. for Sustainable Energy, School of Sci. and Tech., Kwansei Gakuin Univ. (Japan))

[E-PS-1-29] Optical Transitions and Many Body Effects in Highly Doped Monolayer WS_2

*Nihit Saigal[1], David Tiede[1], Hossein Ostovar[1], Hendrik Lambers[1], Ursula Wurstbauer[1]
(1. Univ. of Muenster (Germany))

[E-PS-1-30] Piezoplasmonics: strain-induced tunability of plasmon resonance in AlAs quantum wells

*Alina Khisameeva[1], Viacheslav Muravev[1], Igor Kukushkin[1]
(1. Institute of Solid State Physics Russian Academy of Sciences (Russia))

[E-PS-1-31] Periodic switching of electron-vibron dynamics in nanoelectromechanical systems

*Bilal Tanatar[1], Valeriu Moldoveanu[2], Radu Dragomir[2], Stefan Stanciu[2]
(1. Bilkent University (Turkey), 2. National Institute of Materials Physics (Romania))

[E-PS-1-32] Perovskite based heterostructures: from fundamental studies to optoelectronic
applications

*Nathan Cottam[1], Jonathan Austin[1], Joni Wildman[1], Chengxi Zhang[1], Amalia Patane[1], Chris Tuck[1], Oleg Makarovsky[1], Lyudmila Turyanska[1] (1. University of Nottingham (UK))

[E-PS-1-33] A monolithic, back-gated diamond field-effect transistor for electrically tunable color centers

*Dennis Oing[1], Marcel Ney[1], Georg Bendt[1], Stephan Schulz[1], Martin Paul Geller[1], Axel Lorke[1] (1. Univ. Duisbur-Essen (Germany))

M-PS-1

[M-PS-1-01] Electrically and optically controlled memristive effect in graphene induced by two-dimensional ferroelectric $CuInP_2S_6$

*Anubhab Dey[1], Wenjing Yan[1], Oleg Makarovskiy[1], Amalia Patane[1], Faguang Yan[2], Kaiyou Wang[2]
(1. School of Physics and Astronomy, University of Nottingham (UK), 2. State Key Laboratory of Superlattices and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences (China))

[M-PS-1-02] Analysis of electric-field domain formations and carrier transport properties in GaAs/AlAs asymmetric double-quantum-well superlattices

*Seiryu Nishiyama[1], Ryuto Murohara[1], Tomonori Matsui[1], Makoto Hosoda[2], Kouichi Akahane[3], Naoki Ohtani[1] (1. Doshisha Univ. (Japan), 2. Shizuoka Univ. (Japan), 3. NICT (Japan))

[M-PS-1-03] Influence of Charge Noise and Coupling to Phonons on Adiabatic Electron Transfer Between Quantum Dots

*Jan Adrian Krzywda[1], Łukasz Cywiński[1]
(1. Inst. of Physics Polish Academy of Sciences (Poland))

[M-PS-1-04] Hybridization of Fe 3d Orbitals with the Host InSb Bands in N-type Ferromagnetic Semiconductor (In,Fe)Sb

*Ryo Okano[1], Tomoki Hotta[1], Takahito Takeda[1], Kohsei Araki[1], Kengo Takase[1], Le Duc Anh[1], Shoya Sakamoto[2], Yukiharu Takeda[3], Atsushi Fujimori[4,5], Masaaki Tanaka[1,6], Masaki Kobayashi[1,6]
(1. EEIS, The Univ. of Tokyo (Japan), 2. ISSP, The Univ. of Tokyo (Japan), 3. Japan Atomic Energy Agency (Japan), 4. Dep. of Phys., The Univ. of Tokyo (Japan), 5. Dep. of Appl. Phys., Waseda Univ. (Japan), 6. CSRN, The Univ. of Tokyo (Japan))

[M-PS-1-05] Full Wafer Control of Local Droplet Etched GaAs Quantum Dots

*Hans-Georg Babin[1], Nikolai Bart[1], Marcel Schmidt[1], Andreas D. Wieck[1], Arne Ludwig[1]
(1. Ruhr-Univ. Bochum (Germany))

[M-PS-1-06] Piezoresistive detection of MEMS beam resonators for THz bolometer applications

*Boqi Qiu[1], Nobuaki Watanabe[1], Ya Zhang[2], Naomi Nagai[1], Kazuhiko Hirakawa[1,3]
(1. Inst. of Indus. Sci. , Univ. of Tokyo (Japan), 2. Inst. of Eng. , Tokyo Univ. of Agriculture and Tech. (Japan), 3. Inst. for Nano Quantum Info. Electronics, Univ. of Tokyo (Japan))

[M-PS-1-07] Characterization of Josephson Junctions with quantum point contact formed in an epitaxial Al/InAs quantum well heterostructure

*Haruki Kiyama[1,2,3], Hiroki Idenishi[1], Nozomu Hayashi[1], Mihir Pendharkar[4], Chris J Palmstrom[4,5], Akira Oiwa[1,2,3]
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[M-PS-1-08] Field-Effect Transistor Based On Two-Dimensional Carrier Gas at the $FeO_y/SrTiO_3$ Interface

*Anh Le Duc[1,2,3], Theodorus Jonathan Wijaya[1], Shingo Kaneta-Takada[1], Munetoshi Seki[1,4], Hitoshi Tabata[1,4], Masaaki Tanaka[1,4], Shinobu Ohya[1,2,4]
(1. Department of Electrical Engineering and Information Systems, The University of Tokyo (Japan), 2. Institute of Engineering Innovation, Graduate School of Engineering, The University of Tokyo (Japan), 3. PRESTO, Japan Science and Technology Agency (Japan), 4. Center for Spintronics Research Network (CSRN), The university of Tokyo (Japan))

Joint Conference:
EP2DS-24/MSS-20

E-PS-2 & M-PS-2 Tue. Nov 2, 2021 3:00 PM - 4:45 PM

E-PS-2

[E-PS-2-01] Quantum Dots Formed in GaN/AlGaN FETs and Channel Length Dependence

*Takaya Abe[1], Takahito Kitada[1], Norikazu Ito[2], Taketoshi Tanaka[2], Ken Nakahara[2], Tomohiro Otsuka[1] (1. Tohoku Univ. (Japan), 2. ROHM Co., Ltd (Japan))

[E-PS-2-02] Photocurrent through Double Quantum Dot in Parallel in Magnetic Field

Atsushi Nishida[1], *Mikio Eto[1] (1. Keio University (Japan))

[E-PS-2-03] Tunneling Spin Current in a System with Spin Degeneracy

*Yuta Suzuki[1] (1. The Univ. of Tokyo (Japan))

[E-PS-2-04] Berry Curvature for a Non-Abelian System - Positive Holes Confined in a Two-Dimensional Semiconductor Quantum Well -

*Tatsuki Tojo[1], Kyozaburo Takeda[1] (1. Waseda University (Japan))

[E-PS-2-05] k・p Approach to p-d Exchange Induced Spin Splitting of Conduction Band

*Kenji Hayashida[1], Hiroshi Akera[2]
(1. Division of Applied Physics, Graduate School of Engineering, Hokkaido Univ. Sapporo, Hokkaido (Japan), 2. Division of Applied Physics, Faculty of Engineering, Hokkaido Univ. Sapporo, Hokkaido (Japan))

[E-PS-2-06] Detection of the heating of a two-dimensional electron gas by the third harmonics of the resistance

*Akira Endo[1], Shingo Katsumoto[1], Yasuhiro Iye[1] (1. University of Tokyo (Japan))

[E-PS-2-07] Spin-orbit Coupling Effects in the Quantum Hall Regime Probed by Electron Spin Resonance

*Anton Shchepetilnikov[1], Alina Khisameeva[1], Yuri Nefyodov[1], Igor Kukushkin[1]
(1. Institute of Solid State Physics, Chernogolovka, Russia (Russia))

[E-PS-2-08] Interaction-induced thermodynamic cycle in chiral edge channels

Shinya Ozawa[1], Kyo Yoshida[1], *Yasuhiro Tokura[1,2]
(1. Univ. Tsukuba (Japan), 2. TREMS (Japan))

[E-PS-2-09] Characterization of helical Luttinger liquids in microwave edge resonators

*Alexandre Nima Ardeshir Gourmelon[1], Hiroshi Kamata[1], Jean-Marc Berroir[1], Gwendal Feve[1], Bernard Plaçais[1], Erwann Bocquillon[1] (1. LPENS (France))

[E-PS-2-10] Edge and Bulk Transport in CdHgTe Quantum Well

*Maxim Sergeevich Ryzhkov[1,2], Daniar Azamatovich Khudaiberdiev[1,2], Dmitry Andreevich Kozlov[1], Maxim Leonidovich Savchenko[1], Gregory Vladimirovich Budkin[3], Ze Don Kvon[1], Nikolai Nikolaevich Mikhailov[1], Sergey Alekseevich Dvoretskiy[1]
(1. Rzhanov Institute of Semiconductor Physics of the Siberian Branch of the RAS (Russia), 2. Novosibirsk State University (Russia), 3. Ioffe institute of the RAS (Russia))

[E-PS-2-11] Edge Current States Localization in a HgTe Based Two-Dimensional Topological Insulator

*Eugene Olshanetsky[1], Ze Don Kvon[1,2], Gennadiy Gusev[3], Nikolai Mikhailov[1]
(1. Institute of Semiconductor Physics RAS (Russia), 2. Novosibirsk State University, Novosibirsk (Russia), 3. Instituto de Fisica da Universidade de Sao Paulo (Brazil))

[E-PS-2-12] Fabry-Pérot Cavities Using Different Dispersions in Twisted Double Bilayer Graphene

*Giulia Zheng[1], Elias Portolés[1], Folkert Kornelis de Vries[1], Jihang Zhu[2], Petar Tomić[1], Allan Hugh MacDonald[2], Thomas Ihn[1], Klaus Ensslin[1], Peter Rickhaus[1]
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[E-PS-2-13] Topological Detection with Cavity QED

*Beatriz Perez-Gonzalez[1], Alvaro Gomez-Leon[2], Gloria Platero[1]
(1. ICMM-CSIC (Spain), 2. IFF-CSIC (Spain))

[E-PS-2-14] Electron-Spin-Resonance in a Proximity-Coupled MoS2/Graphene van-der-Waals Heterostructure

*Chithra Harihara Sharma[1], Pai Zhao[1,2], Lars Tiemann[1], Marta Prada[3], Robert H Blick[1,4]
(1. CHyN, Universität Hamburg (Germany), 2. Institute of Materials and X-Ray Physics, Hamburg University of Technology (Germany), 3. Institute for Theoretical Physics, Universität Hamburg HARBOR (Germany), 4. Materials Science and Engineering, University of Wisconsin-Madison (United States of America))

[E-PS-2-15] Quantum Dot Formation at Gate-Defined Interfaces in Twisted Double Bilayer Graphene

*Elias Portoles[1], Giulia Zheng[1], Folkert Kornelis de Vries[1], Jihang Zhu[2], Petar Tomic[1], Allan Hugh MacDonald[2], Thomas Ihn[1], Klaus Ensslin[1], Peter Rickhaus[1]
(1. ETH Zurich (Switzerland), 2. Univ. of Texas at Austin (United States of America))

[E-PS-2-16] Fully spin-resolved quantum point contact in trilayer WSe_2 van der Waals heterostructure

*Kohei Sakanashi[1], Peter Krueger[1], Kenji Watanabe[2], Takashi Taniguchi[2], Gil-Ho Kim[3], David K Ferry[4], Jonathan P Bird[5], Nobuyuki Aoki[1]
(1. Chiba Univ. (Japan), 2. NIMS (Japan), 3. Sungkyunkwan Univ. (Korea), 4. Arizona State Univ. (United States of America), 5. Univ. at Buffalo, SUNY (United States of America))

[E-PS-2-17] Intravalley Scattering above the B Exciton Resonance in Monolayer Transition-metal Dichalcogenides

*Takeshi Odagawa[1], Eito Asakura[1], Masaki Suzuki[1], Shutaro Karube[1,2], Junsaku Nitta[1,2,3], Makoto Kohda[1,2,3,4]
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[E-PS-2-18] Rydberg series of exchange-split excitons in highly anisotropic quasi two-dimensional ReS_2

*Piotr Kapuscinski[1,2], Jan Dzian[1,3], Artur O. Slobodeniuk[4], Carlos Rodriguez-Fernandez[1], Joanna Jadczak[2], Leszek Bryja[2], Clement Faugeras[1], Marek Potemski[1,5]
(1. LNCMI-CNRS (France), 2. Wroclaw Univ. of Sci. and Tech. (Poland), 3. Palacky Univ. (Czech Republic), 4. Charles Univ. (Czech Republic), 5. Univ. of Warsaw (Poland))

[E-PS-2-19] Choosing Direction in Flatland: Anisotropy of Electronic Bands in Thin Rhenium Diselenide

Surani M. Gunasekera[1], Nourdine Zibouche[1], Daniel Wolverson[1], *Marcin Mucha-Kruczynski[1]
(1. Univ. of Bath (UK))

[E-PS-2-20] Magnetic Domain Walls and Topological Bound States in Polyacene

*Takuto Kawakami[1], Gen Tamaki[1], Mikito Koshino[1] (1. Osaka Univ. (Japan))

[E-PS-2-21] High-Responsivity Terahertz Rectification by Tunnel Junctions in Graphene Bilayer

*Dmitry Svintsov[1], Denis Bandurin[2], Igor Gayduchenko[3], Georgy Alymov[1], Andre Geim[2], Georgy Fedorov[1]
(1. Moscow Institute of Physics and Technology (Russia), 2. University of Manchester (UK), 3. Moscow Pedagogical State University (Russia))

[E-PS-2-22] Ultrafast Electrical Readout of Photocurrent in hBN-encapsulated Graphene Using On-chip THz Spectroscopy

*Katsumasa Yoshioka[1], Taro Wakamura[1], Masayuki Hashisaka[1], Kenji Watanabe[2], Takashi Taniguchi[2], Norio Kumada[1]
(1. NTT Basic Research Labs. (Japan), 2. National Inst. for Materials Sci. (Japan))

[E-PS-2-23] Edge Photogalvanic Effect in Two-Dimensional Crystals

*Mikhail Durnev[1], Sergey Tarasenko[1], Vasiliy Bel'kov[1], Susanne Candussio[2], Sergey Ganichev[2], Artem Mishchenko[3], Sergey Slizovskiy[3], Vladimir Fal'ko[3]
(1. Ioffe Institute (Russia), 2. Univ. of Regensburg (Germany), 3. Univ. of Manchester (UK))

[E-PS-2-24] Quantum Oscillations in Transmittance - the Linear Counterpart of MIRO

*Alexey Shuvaev[1], Maxim Savchenko[2,3], Ivan Dmitriev[4,5], Alexey Bykov[2,3], Ashat Bakarov[2,3], Ze Don Kvon[2,3], Andrei Pimenov[1]
(1. Vienna Univ. of Tech. (Austria), 2. Rzhanov Inst. of Semiconductor Physics (Russia), 3. Novosibirsk State Univ. (Russia), 4. Univ. of Regensburg (Germany), 5. Ioffe Inst. (Russia))

[E-PS-2-25] Aperiodic flips and self-oscillations of electric field in domains spontaneously forming in microwave-induced zero resistance states

*Ivan Dmitriev[1,2]
(1. University of Regensburg (Germany), 2. Ioffe Institute, St. Petersburg (Russia))

[E-PS-2-26] Shubnikov-de Haas oscillations at terahertz frequencies

Andrei Pimenov[1],*Jan Gospodaric[1] (1. TU Vienna (Austria))

[E-PS-2-27] Photo-induced resistance oscillations in gapped graphene systems

*Jesus Inarrea Inarrea[1], Gloria Platero (1. Universidad Carlos III (Spain))

[E-PS-2-28] Universal Transparency and Fine Details of the Dirac Cone in Thin HgTe Films

*Vlad Dziom[1], Alexey Shuvaev[2], Jan Gospodaric[2], Elena Novik[3], Alena Dobretsova[4,5], Nikolai Mikhailov[4,5], Ze Don Kvon[4,5], Zhanybek Alpichshev[1], Andrei Pimenov[2]
(1. IST Austria (Austria), 2. TU Wien (Austria), 3. Inst. of Theoretical Physics, TU Dresden (Germany), 4. Rzhanov Inst. of Semiconductor Physics Novosibirsk (Russia), 5. Novosibirsk State Univ. (Russia))

[E-PS-2-29] Relativistic Renormalization of the Plasmon Electron Mass in Two-Dimensional Electron Systems

*Ivan V. Andreev[1], Viacheslav M. Muravev[1], Nikolai D. Semenov[1], Igor V. Kukushkin[1]
(1. Osipyan Institute of Solid State Physics RAS (Russia))

[E-PS-2-30] Ultimate capabilities of 2d plasmonics for photodetection applications

*Dmitry Mylnikov[1], Dmitry Svintsov[1]
(1. Laboratory of 2d Materials for Optoelectronics, Moscow Institute of Physics and Technology (Russia))

[E-PS-2-31] Magnetodispersion of Two-Dimensional Plasmon Polaritons

*Nikolai Dmitrievich Semenov[1], Vyacheclav Mikhailovich Muravev[1], Ivan Vladimirovich Andreev[1], Igor Vladimirovich Kukushkin[1]
(1. Osipyan Institute of Solid State Physics RAS (Russia))

[E-PS-2-32] Novel Plasmonic Excitation for a Tunable Back-Scattering-Immune Transmitter Without Magnetic Field

*Aleksandr S. Petrov[1] (1. Moscow Institute of Physics and Technology (Russia))

[E-PS-2-33] Elucidation of mechanism of charge accumulation of Poly(heptazine imide)

*Goichiro Seo[1], Yuki Saito[1], Miyu Nakamichi[1], Kaname Kanai[1] (1. Tokyo univ. of sci. (Japan))

M-PS-2

[M-PS-2-01] Square-root topological phases on decorated honeycomb lattice

*Tomonari Mizoguchi[1], Yoshihito Kuno[1], Tsuneya Yoshida[1], Yasuhiro Hatsugai[1]
(1. University of Tsukuba (Japan))

[M-PS-2-02] P-N Junctions in Pristine Graphene Nanoribbons

*Yuri Vasilyev[1] (1. Ioffe Institute (Russia))

[M-PS-2-03] Tunable Auger- and Spin-Dynamics in a Quantum Dot

*Marcel Ney[1], Hendrik Mannel[1], Fabio Rimek[1], Jens Kerski[1], Pia Lochner[1], Arne Ludwig[2], Andreas Wieck[2], Axel Lorke[1], Martin Paul Geller[1]
(1. University of Duisburg-Essen (Germany), 2. Ruhr-University Bochum (Germany))

[M-PS-2-04] Spin dependent transport characteristics in full ferromagnetic (In,Fe)Sb/(Ga,Fe)Sb p-n junctions

*Thanh Tu Nguyen[1,2], Nam Hai Pham[3,4], Duc Anh Le[1,5,6], Masaaki Tanaka[1,4]
(1. EEIS Tokyo Univ. (Japan), 2. HCMUE Univ. (Viet Nam), 3. Tokyo Inst. Tech. (Japan), 4. CSRN Tokyo Univ. (Japan), 5. IEI Tokyo Univ. (Japan), 6. PRESTO, JST (Japan))

[M-PS-2-05] Multiple Spin Flip Raman Scattering in CdSe/CdMnS Colloidal Nanoplatelets

*Ina V. Kalitukha[1], Elena V. Shornikova[2], Dmitri R. Yakovlev[1,2], Danil O. Tolmachev[1,2], Vitalii Yu. Ivanov[3], Victor F. Sapega[1], Dennis Kudlacik[2], Yuri G. Kusrayev[1], Aleksandr A. Golovatenko[1], Sushant Shendre[4], Savas Delikanli[4,5], Hilmi Volkan Demir[4,5], Manfred Bayer[1,2]
(1. Ioffe Institute (Russia), 2. TU Dortmund (Germany), 3. IF PAN (Poland), 4. LUMINOUS!, NTU (Singapore), 5. UNAM, Bilkent University (Turkey))

[M-PS-2-06] Optical emission from a lateral p-i-n junction formed in an un-doped GaAs/AlGaAs quantum well

*Takafumi Fujita[1], Satoshi Yanagidani[1], Genki Fukuda[1], Julian Ritzmann[2], Arne Ludwig[2], Akira Oiwa[1] (1. Osaka Univ. (Japan), 2. Ruhr-Univ. Bochum (Germany))

[M-PS-2-07] Driving and Damping of Vibrations in Nanomechanical Resonators Containing a Two-Dimensional Electron Gas

*Andrey Anatolievich Shevyrin[1], Arthur Grigorievich Pogosov[1,2], Askhat Klimovich Bakarov[1,2], Alexander Andreevich Shklyaev[1,2], Sanjeev Kumar[3]
(1. Rzhanov Inst. of Semiconductor Physics SB RAS (Russia), 2. Novosibirsk State Univ. (Russia), 3. Department of Electronic and Electrical Engineering, UCL (UK))

[M-PS-2-08] Enhanced Efficiency of Single Photoelectron Trapping in a Gate-defined Quantum Dot with a Surface Plasmon Antenna

*Rio Fukai[1], Yuji Sakai[1], Takafumi Fujita[1], Haruki Kiyama[1], Arne Ludwig[2], Andreas Dirk Wieck[2], Akira Oiwa[1] (1. Osaka Univ. (Japan), 2. Ruhr-Univ. Bochum (Germany))

Joint Conference:
EP2DS-24/MSS-20

E-PS-3

Wed. Nov 3, 2021 11:30 AM - 1:15 PM

[E-PS-3-01] Band structure probe of near Surface InAs Quantum Wells

*Brenden A Magill[1], Giti A. Khodaparast[1], Sunil K. Thapa[2], Christopher J. Stanton[2], Joseph Yuan [3], Mehdi Hatefipour[3], Matthieu Dartiailh[3], Kasra Sardashti[3], Kaushini S. Wickramasinghe[3], Javad Shabani[3], Yasuhiro H. Matsuda [4], Zhou Yang[4], Yoshimitsu Kohama[4]
(1. Department of Physics, Virginia Tech (United States of America), 2. Department of Physics, University of Florida (United States of America), 3. Center for Quantum Phenomena, New York University (United States of America), 4. Institute for Solid State Physics, University of Tokyo (Japan))

[E-PS-3-02] Tuning Dot-Specific Effective g-factors in a GaAs/AlGaAs Double Quantum Dot Device Confining a Single-Hole

*Aviv Padawer-Blatt[1,2], Jordan Ducatel[1,2], Alex Bogan[1], David Guy Austing[1], Marek Korkusinksi[1], Louis Gaudreau[1], Piotr Zawadzki[1], Andrew Sachrajda[1], Sergei Studenikin[1,2], Lisa Tracy[3], John Reno[3], Terry Hargett[3]
(1. National Res. Council of Canada (Canada), 2. Univ. of Waterloo (Canada), 3. Sandia National Labs. (United States of America))

[E-PS-3-03] Two-Dimensional Anisotropic Wigner Solid at Zero Magnetic Field

*Md Shafayat Hossain[1], M. K. Ma[1], K. A. Villegas Rosales[1], Y. J. Chung[1], L. N. Pfeiffer[1], K. W. West[1], K. W. Baldwin[1], Mansour Shayegan[1] (1. Princeton Univ. (United States of America))

[E-PS-3-04] Hydrodynamic Effects in the Differential Resistivity of an Ultra-high Mobility Two-dimensional Electron Gas at High DC Current Densities Reaching 2.6 A/m

Zitong Wang[1], Michael Hilke[1], Ken West[2], Loren Pfeiffer[2], Norman Fong[3], *David Guy Austing[3], Sergei Studenikin[3]

(1. McGill University (Canada), 2. Princeton University (United States of America), 3. National Research Council of Canada (Canada))

[E-PS-3-05] Fractional Quantum Hall Effect Energy Gaps: Role of Electron Layer Thickness

*Kevin Amilcar Villegas Rosales[1], Pranav T Madathil[1], Yoon Jang Chung[1], Loren P. Pfeiffer[1], Kirk Baldwin[1], Ken West[1], Mansour Shayegan[1]
(1. Princeton University (United States of America))

[E-PS-3-06] Melting Phase Diagram Of Bubble Phases In High Landau Levels

*Siddharth Kumar Singh[1], Kevin Villegas Rosales[1], Hao Deng, Yoon Jang Chung[1], Loren Pfeiffer[1], Ken West[1], Kirk Baldwin[1], Mansour Shayegan[1]
(1. Princeton University (United States of America))

[E-PS-3-07] I-V Characteristics And Noise In Transport In The Wigner Solid Regime

*Pranav Thekke Madathil[1], Kevin Amilcar Villegas Rosales[1], Chengyu Wang[1], Yoon Jang Chung[1], Loren Pfeiffer[1], Kirk Baldwin[1], Ken West[1], Mansour Shayegan[1]
(1. Princeton University (United States of America))

[E-PS-3-08] Large Many-body Enhanced Gap Near the v = 1 Landau Level Crossing in a Dilute GaAs Two-dimensional Hole System

*Chengyu Wang[1], Meng Ma[1], Yoonjang Chung[1], Loren Pfeiffer[1], Ken West[1], Kirk Baldwin[1], Roland Winkler[2], Mansour Shayegan[1]
(1. Princeton Univ. (United States of America), 2. Northern Illinois Univ. (United States of America))

[E-PS-3-09] Observation of Strong Helicity Dependence of Microwave-induced Resistance Oscillations

*Maxim L. Savchenko[1,2], Alexey Shuvaev[3], Ivan Dmitriev[4,5], Sergey D. Ganichev[4], Ze Don Kvon[2,6], Andrei Pimenov[3]
(1. Purdue Univ. (United States of America), 2. Rzhanov Inst. of Semiconductor Physics (Russia), 3. Inst. of Solid State Physics (Austria), 4. Univ. of Regensburg (Germany), 5. Ioffe Inst. (Russia), 6. Novosibirsk State Univ. (Russia))

[E-PS-3-10] Microwave Transport Study Shows a Marginal Metallic State at a Fractional Filling of '8/5' and '4/3' of Landau Levels in the GaAs/AlGaAs 2D Electron System

*Ramesh Mani[1], Kushan Wijewardena[1], Tharanga R Nanayakkara[1], Annika Kriisa[1], Christian Reichl[2], Werner Wegscheider[2]
(1. Georgia State University (United States of America), 2. ETH-Zurich (Switzerland))

[E-PS-3-11] Microwave Photoresistance in $Al_xGa_{1-x}As/Al_{0.24}Ga_{0.76}As$ Quantum Wells

*Ian B. MacKay[1], Qianhui Shi[1], Geoffrey C. Gardner[2], Michael J. Manfra[2], Michael A. Zudov[1]
(1. Univ. of Minnesota (United States of America), 2. Purdue Univ. (United States of America))

[E-PS-3-12] Gate controlled quantum dots in monolayer WSe2

Justin Boddison-Chouinard[2], Alex Bogan[1], Norman Fong[1], Kenji Watanabe[3], Takashi Taniguchi[3], Sergei Studenikin[1], Andy Sachrajda[1], Marek Korkusinski[1], Abdulmenaf Altintas[2], Maciej Bieniek[4], Pawel Hawrylak[2], Adina Luican-Mayer[2], *Louis Gaudreau[1]
(1. National Research Council of Canada (Canada), 2. University of Ottawa (Canada), 3. National Institute for Materials Science (Japan), 4. Wroclaw University of Science and Technology (Poland))

[E-PS-3-13] Probing electron viscous flow in graphene using a Scanning Probe Microscope

*Sagar Bhandari[1], Michael Zirpoli[1] (1. Slippery Rock University (United States of America))

[E-PS-3-14] Theory of Superconductivity in Twisted Bilayer Graphene Mediated by Sublattice Pseudospin Fluctuations

*Chunli Huang[1], Nemin Wei[1], Allan MacDonald[1]
(1. University of Texas at Austin (United States of America))

[E-PS-3-15] Atlas of Air-stable 2D Metals: Gapping Conditions, Alloying Rules, and Superconductivity

*Yuanxi Wang[1,2], Vincent H. Crespi[1]
(1. Pennsylvania State Univ. (United States of America), 2. Univ. of North Texas (United States of America))

Joint Conference:
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E-PS-4 & M-PS-3 Thu. Nov 4, 2021 3:00 PM - 4:45 PM

E-PS-4

[E-PS-4-01] Conductance calculation in compact spin qubits of FinFET

*Tetsufumi Tanamoto[1], Keiji Ono[2] (1. Teikyo Univ. (Japan), 2. Riken (Japan))

[E-PS-4-02] High-fidelity Spin Readout Optimized by a Two-step Latching Mechanism

*Haruki Kiyama[1,2,3], Danny van Hien[1], Arne Ludwig[4], Andreas D Wieck[4], Akira Oiwa[1,2,3]
(1. SANKEN, Osaka Univ. (Japan), 2. Center for Spintronics Res. Network, Grad. School of Eng. Sci., Osaka Univ. (Japan), 3. Center for Quantum Info. and Quantum Biology, Osaka Univ. (Japan), 4. Lehrstuhl für Angewandte Festkörperphysik, Ruhr-Universität Bochum (Germany))

[E-PS-4-03] Realization Of A Third Order Sweet Spot In A Triple Quantum Dot Qubit: Energy Spectroscopy And Coherence

*Benedikt Kratochwil[1], Jonne V. Koski[1], Andreas J. Landig[1], Pasquale Scarlino[1], José Carlos Abadillo-Uriel[2], Christian Reichl[1], Susan N. Coppersmith[3], Werner Wegscheider[1], Mark Friesen[2], Andreas Wallraff[1], Thomas Ihn[1], Klaus Ensslin[1]
(1. ETH Zurich (Switzerland), 2. Univ. of Wisconsin (United States of America), 3. Univ. of New South Wales (Australia))

[E-PS-4-04] Characterization of 2DHG in SiMOSFET Hall Bars

*Petar Tomic[1], Felix Schupp[2], Matthias Mergenthaler[2], Gian Salis[2], Andreas Fuhrer[2], Thomas Ihn[1], Klaus Ensslin[1] (1. ETH Zurich (Switzerland), 2. IBM Research-Zurich (Switzerland))

[E-PS-4-05] Anomalies in the quantized Hall resistances

Elias Peraticos[1,2], Sanjeev Kumar[1,2], Michael Pepper[1,2], *Afif Siddiki[3], I. Farrer[4], D. Ritchie[4], G. Jones[4], J. Griffiths[4]
(1. University Collage London (UK), 2. London Centre for Nanotechnology (UK), 3. T. C. Maltepe University (Turkey), 4. Cavendish Lab., Cambridge Univ. (UK))

[E-PS-4-06] Impact of In-situ Controlled Disorder Screening on Fractional Quantum Hall Effects

*Takafumi Akiho[1], Koji Muraki[1] (1. NTT BRL (Japan))

[E-PS-4-07] Spin Reversal of a Quantum Hall Ferromagnet at a Landau Level Crossing

Mirko Lupatini[1], Patrick Knüppel[2], *Stefan Faelt[1], Roland Winkler[3], Mansour Shayegan[4], Atac Imamoglu[2], Werner Wegscheider[1]
(1. Solid State Physics Lab., ETH Zurich (Switzerland), 2. Inst. of Quantum Electronics, ETH Zurich (Switzerland), 3. Department of Physics, Northern Illinois Univ. (United States of America), 4. Department of Electrical Eng., Princeton Univ. (United States of America))

[E-PS-4-08] Electron spin resonance in a strongly correlated 2D systems

*Alina Khisameeva[1], Anton Shchepetilnikov[1], Yury Nefyodov[1], Igor Kukushkin[1]
(1. Institute of Solid State Physics Russian Academy of Sciences (Russia))

[E-PS-4-09] Quantum Hall Effect in Three-Dimensional HgTe Film

Maxim Leonidovich Savchenko[1,2], Nikita N. Vasilyev[2,3], *Dmitriy Andreevich Kozlov[2,3], Ze Don Kvon[2,3], Nikolay N. Mikhailov[2], Sergey A. Dvoretskiy[2]
(1. Department of Physics and Astronomy, Purdue University (United States of America), 2. Rzhanov Institute of Semiconductor Physics of SB RAS (Russia), 3. Department of Physics, Novosibirsk State University (Russia))

[E-PS-4-10] Tunable Mach-Zehnder Interferometer in Graphene

*Alexandre Assouline[1], Myunglae Jo[1], Paul Brasseur[1], Geneviève Fleury[1], Heung-Sun Sim[2], Kenji Watanabe[3], Takashi Taniguchi[3], Weerapad Dumnernpanich[1], Patrice Roche[1], Christian Glattli[1], Norio Kumada[4], François Parmentier[1], Preden Roulleau[1]
(1. SPEC, CEA, CNRS (France), 2. Department of Physics, Korea Advanced Institute of Science and Technology (Korea), 3. National Institute for Materials Science (Japan), 4. NTT Basic Research Laboratories, NTT Corporation (Japan))

[E-PS-4-11] -

[E-PS-4-12] Spin-Selective Equilibration among Integer Quantum Hall Edge Channels

*Giorgio Nicoli'[1], Christoph Adam[1], Marc P. Röösli[1], Peter Märki[1], Jan Scharnetzky[1], Christian Reichl[1], Werner Wegscheider[1], Thomas M. Ihn[1], Klaus Ensslin[1]

(1. Solid State Physics Lab., ETH Zürich (Switzerland))

[E-PS-4-13] Double Quantum Antidot Formed by Air-bridged Gates in the Integer Quantum Hall Regime

*Tokuro Hata[1], Kazuhiro Sada[1], Tomoki Uchino[1], Takafumi Akiho[2], Koji Muraki[2], Toshimasa Fujisawa[1] (1. Tokyo Tech (Japan), 2. NTT Basic Res. Labs. (Japan))

[E-PS-4-14] 2D quantum transport in graphene: from exfoliated single layer flakes to inkjet-printed multi-flake networks

Jonathan Gosling[1], Nathan Cottam[1], *Feiran Wang[1], Gustavo Trindade[1], Graham Rance[1], Alexander Balanov[2], Mark Greenaway[2], Richard Hague[1], Chris Tuck[1], Mark Fromhold[1], Oleg Makarovsky[1], Lyudmila Turyanska[1]
(1. University of Nottingham (UK), 2. Loughborough University (UK))

[E-PS-4-15] Moiré phonon in graphene/hexagonal boron nitride moiré superlattice

*Lukas P. A. Krisna[1], Mikito Koshino[1] (1. Osaka University (Japan))

[E-PS-4-16] Electron Transport in Dual-gated Three-layer MoS_2

*Michele Masseroni[1], Tim Davatz[1], Riccardo Pisoni[1], Folkert K. de Vries[1], Peter Rickhaus[1], Vladimir Fal'ko[2], Thomas Ihn[1], Klaus Ensslin[1]
(1. ETH Zurich (Switzerland), 2. Univ. of Manchester (UK))

[E-PS-4-17] Coulomb-mediated crosstalk between selection-rule separated pairs of Landau-level transitions in graphene

*Stephan Winnerl[1], Angelika Seidl[1,2], Jan Wyzula[3], Milan Orlita[3,4], Jan Kunc[4], Harald Schneider[1], Manfred Helm[1,2]
(1. Helmholtz-Zentrum Dresden-Rossendorf (Germany), 2. Technische Universität Dresden (Germany), 3. Laboratoire National des Champs Magnétiques Intenses (France), 4. Charles University (Czech Republic))

[E-PS-4-18] Field singularities, universal absorption enhancement and efficient plasmon launching at 2d junctions

*Egor Nikulin[1], Dmitry Mylnikov[1], Denis Bandurin[1], Dmitry Svintsov[1]
(1. Moscow Institute of Physics and Technology (Russia))

[E-PS-4-19] Interface State and Potential Barriers between Ti and Multilayer MoS_2

*AYA HAMAMOTO[1], Yumika Aikawa[1], Ryosuke Ishiguro[1] (1. Japan Women's Univ. (Japan))

[E-PS-4-20] Topological Bound States in Multiway Junction of Graphene Nanoribbons and their Crystalline Networks

*Gen Tamaki[1], Takuto Kawakami[1], Yuji Hamamoto[2], Yoshitada Morikawa[2], Mikito Koshino[1]
(1. Dept. Phys. Osaka Univ. (Japan), 2. Dept. Precision Sci. and Tech. Osaka Univ. (Japan))

[E-PS-4-21] Discovery of Magnetic Kagome Lattice with Chern Number C = 1

*Shuang Jia[1], Xitong Xu[1], Wenlong Ma[1], Jiaxin Yin[2]
(1. Peking University (China), 2. Princeton University (United States of America))

[E-PS-4-22] Observation of Lateral Quantum Confinement of Small WS_2 Crystalline Nuclei

*Ruoxi Wang[1], Taketo Aihara[1], Yoshiki Sakuma[2], Michio Ikezawa[1]
(1. Univ. of Tsukuba (Japan), 2. National Inst. for Materials Sci. (Japan))

[E-PS-4-23] Strong Polarization Sensitivity of Graphene/Metal Contacts at Infrared Wavelengths

*Elena Titova[1], Valentin Semkin[1], Dmitry Mylnikov[1], Dmitry Svintsov[1] (1. MIPT (Russia))

[E-PS-4-24] Excitons and Plasmons in Graphene Nanoribbons: A Comparative Study with Carbon Nanotubes

*Seiji Uryu[1] (1. Iwate Univ. (Japan))

[E-PS-4-25] Magneto Photoluminescence of Interlayer Excitons in the MoS2/WSe2 TMD Heterobilayer.

*Thomas Pelini[1,2,3], Alex Delhomme[1,2,3], Clément Faugeras[1,2,3], Marek potemski[1,2,3]
(1. CNRS (France), 2. Lab. des champs magnétiques intenses (France), 3. Univ. Grenoble Alpes (France))

[E-PS-4-26] Plasma oscillations in disk with two-dimensional electron gas

*Danil Rodionov[1], Igor Zagorodnev[1], Andrey Zabolotnykh[1]
(1. Kotelnikov Institute of Radio Engineering and Electronics of the RAS (Russia))

[E-PS-4-27] Polariton condensate's linear polarization dynamics in co-directional couplers

*Maria Dolores Martin[1], Elena Rozas[1], Alexey Yulin[3], Johannes Beierlein[2], Sebastian Klembt[2], Sven Hofling[2], Luis Vina[1]
(1. Universidad Autonoma de Madrid (Spain), 2. Wurzburg University (Germany), 3. ITMO University (Russia))

[E-PS-4-28] Current-induced spin-orbit torques in Co and Co/graphene

*Ye Du[1,2], Songtian Li[3], Shutaro Karube[1,4], Makoto Kohda[1,2,4], Seiji Sakai[3], Junsaku Nitta[1,2,4]
(1. Dept. Mater. Sci., Tohoku Univ. (Japan), 2. CSIS, Tohoku Univ. (Japan), 3. QST (Japan), 4. CSRN, Tohoku Univ. (Japan))

[E-PS-4-29] Ultrafast spin polarization switching in hybrid semiconductor nanostructures

*Vladimir Mantsevich[1], Igor Rozhansky[2], Natalya Maslova[1], Nikita Averkiev[2], Petr Arseyev[3], Erkki lahderanta[4]
(1. Lomonosov Moscow State University (Russia), 2. Ioffe Physical Institute (Russia), 3. P.N. Lebedev Physical Institute (Russia), 4. Lappeenranta Technical University (Finland))

[E-PS-4-30] Compact Band Model and Hole Mobility Calculation for Black Phosphorous: From Monolayer to Few-Layer

*Yun-Fang Chung[1], Cheng-Hsien Yang[1], Shu-Tong Chang[1]
(1. National Chung Hsing University (Taiwan))

[E-PS-4-31] Supercurrent enhancement by quasiparticle trapping of Josephson junction on an InAs nanowire

*Yosuke Sato[1], Kent Ueda[2], Yuusuke Takeshige[2], Hiroshi Kamata[1], K. Li[3], Lars Samuelson[4], Hongqi Xu[3,4,5], Sadashige Matsuo[1,6], Seigo Tarucha[1,7]
(1. RIKEN (Japan), 2. Univ. of Tokyo (Japan), 3. Peking Univ. (China), 4. Lunt Univ. (Sweden), 5. Beijing Academy of Quantum Info. Sci. (China), 6. JST (Japan), 7. Tokyo Univ. of Sci. (Japan))

M-PS-3

[M-PS-3-01] Generalized eigenvalue problem with indefinite Hermitian matrices and non-Hermitian topological band structure

*Takuma Isobe[1], Tsuneya Yoshida[1], Yasuhiro Hatsugai[1] (1. Univ. of Tsukuba (Japan))

[M-PS-3-02] Optimal Bandwidth in Quantum Event Measurements Using Post-Processing

*Jens Kerski[1], Hendrik Mannel[1], Pia Lochner[1], Eric Kleinherbers[1], Annika Kurzmann[2], Arne Ludwig[3], Andreas D. Wieck[3], Jürgen König[1], Axel Lorke[1], Martin Geller[1]
(1. Univ. of Duisburg-Essen (Germany), 2. RWTH Aachen Univ. (Germany), 3. Ruhr-Universität Bochum (Germany))

[M-PS-3-03] Retardation of Entanglement Decay of Two Spin Qubits by Quantum Measurements

*Igor Bragar[1] (1. Inst. of Physics, Polish Academy of Sciences (Poland))

[M-PS-3-04] One-side excited one-way surface modes in epsilon-near-zero magneto-optical waveguides

*Tianji Liu[1], Yasutomo Ota[2,3], Satoshi Iwamoto[1,3,4]
(1. RCAST, Univ. Tokyo (Japan), 2. APPI, Keio Univ. (Japan), 3. NanoQuine, Univ. Tokyo (Japan), 4. IIS, Univ. Tokyo (Japan))

[M-PS-3-05] Electron-Hole-Hybrid Systems in p-i-n Structures with a Barrier

*Simon Parolo[1], Mirko Lupatini[1], Elcin Külah[1], Christian Reichl[1], Werner Dietsche[1,2], Werner Wegscheider[1]
(1. ETH Zurich (Switzerland), 2. Max-Planck-Institut für Festkörperforschung (Germany))

[M-PS-3-06] Large-area van der Waals Epitaxy of Monochalcogenide Based Materials

*Eugenio Zallo[1,2], Andrea Pianetti[2,3], Stefano Cecchi[2], Yuliya Zaytseva[4], Alessandro Giuliani[3], Zongzhe Cheng[2], Michele Bissolo[1], Marco Dembecki[1], Philipp Moser[1], Malte Kremser[1], Nikolai Borgardt[4], Michael Hanke[2], Fabrizio Arciprete[3], Maurizia Palummo[3], Olivia Pulci[3], Jonathan J. Finley[1], João Marcelo J. Lopes[2], Raffaella Calarco[2,5]
(1. Walter Schottky Inst. and Department of Physics- Technical Univ. of Munich, Garching (Germany), 2. Paul-Drude-Inst. für Festkörperelektronik, Leibniz-Inst. im Forschungsverbund Berlin e.V, Berlin (Germany), 3. Department of Physics, Univ. of Rome "Tor Vergata", Rome (Italy), 4. Electron Microscopy Lab., National Res. Univ. of Electronic Technology (MIET), (Russia), 5. CNR Inst. for Microelectronics and Microsystems (IMM), Consiglio nazionale delle ricerche, Rome (Italy))

[M-PS-3-07] Single-electron tunneling and qubit in Si tunnel FETs with beryllium impurities

*Yoshisuke Ban[1], Kimihiko Kato[2], Shota Iizuka[2], Satoshi Moriyama[3], Koji Ishibashi[1], Takahiro Mori[2], Keiji Ono[1] (1. RIKEN (Japan), 2. AIST (Japan), 3. Tokyo Denki Univ. (Japan))

[M-PS-3-08] Dual-mode and Dual-gate Nanowire Electromechanical Resonator Devices

*Hiroshi Yamaguchi[1], Wataru Tomita[1,2], Satoshi Sasaki[1], Kouta Tateno[1], Hajime Okamoto[1]
(1. NTT Basic Research Laboratories (Japan), 2. Tohoku University (Japan))

Joint Conference:
EP2DS-24/MSS-20

E-PS-5 & M-PS-4 Fri. Nov 5, 2021 3:00 PM - 4:45 PM

E-PS-5

[E-PS-5-01] Dynamics of electron escape from a shallow quantum dot

*Niels Ubbelohde[1], Austris Akmentins[2], David Reifert[1], Lars Freise[1], Thomas Gerster[1], Thomas Weimann[1], Frank Hohls[1], Klaus Pierz[1], Vyacheslavs Kashcheyevs[2]
(1. Physikalisch-Technische Bundesanstalt (PTB) (Germany), 2. Faculty of Physics and Mathematics, University of Latvia (Latvia))

[E-PS-5-02] Trapping and counting ballistic non-equilibrium electron

*Lars Freise[1], Thomas Gerster[1], David Reifert[1], Thomas Weimann[1], Klaus Pierz[1], Frank Hohls[1], Niels Ubbelohde[1] (1. Physikalisch-Technische Bundesanstalt (Germany))

[E-PS-5-03] Theoretical studies on the single- and multi-channel Kondo clouds

*Jeongmin Shim[1], Donghoon Kim[1], Michihisa Yamamoto[2], H.-S. Sim[1]
(1. Department of Physics, Korea Advanced Institute of Science and Technology (KAIST) (Korea), 2. Center for Emergent Matter Science (CEMS), RIKEN (Japan))

[E-PS-5-04] Electric Current Drag of Photons in Quantum Wells

*Grigory Budkin[1], Ivan Makhov[2], Dmitrii Firsov[2]
(1. Ioffe Institute (Russia), 2. Peter the Great St. Petersburg Polytechnic University (Russia))

[E-PS-5-05] Nonreciprocal electron hydrodynamics under magnetic fields: applications to nonreciprocal surface magnetoplasmons

*Ryotaro Sano[1], Riki Toshio[1], Norio Kawakami[1] (1. Kyoto Univ. (Japan))

[E-PS-5-06] Viscous Electron Transport through Point Contacts in Ga[Al]As Heterostructures

*Lev Ginzburg[1], Yuze Wu[1], Carolin Gold[1], Marc Röösli[1], Christian Reichl[1], Matthias Berl[1], Werner Wegscheider[1], Thomas Ihn[1], Klaus Ensslin[1] (1. ETH Zurich (Switzerland))

[E-PS-5-07] Negative Nonlocal Resistivity of Viscous Hall Liquid in a High Mobility Two-Dimensional Electron System

*Chi Zhang[1], Weijie Ji[1], Li Lu[2], Kai Chang[1]
(1. Institute of Semiconductors, CAS (China), 2. Institute of Physics, CAS (China))

[E-PS-5-08] High-Precision Noise Cross-Correlation Measurement Using Homemade-HEMT-Based Transimpedance Amplifiers

*Takase Shimizu[1,2], Masayuki Hashisaka[1,3], Heorhii Bohuslavskyi[1], Takafumi Akiho[1], Norio Kumada[1], Shingo Katsumoto[2], Koji Muraki[1]
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[E-PS-5-09] Does shot noise reflect the quasiparticle charge?

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[E-PS-5-10] On-chip time-resolved charge detection in InAs/GaSb composite quantum wells

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[E-PS-5-11] Effects of Strain on the Graphene Nanoconstrictions

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[E-PS-5-12] Numerical Study on Transport Properties of the Junction Composed of Trivial Insulators

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[E-PS-5-13] Interlayer Configurations and Magnetotransport Properties of Self-Assembled Folded Graphene

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[E-PS-5-14] Symmetry-Based Constraints on Interlayer Tunneling in Generic Twisted Bilayers: Theory and Implication for Band Flattening

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[E-PS-5-15] Satellite resistance peaks in h-BN/graphene heterostructures due to hybridization of multiple bands via moiré potential

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[E-PS-5-16] Exploring Many-Body Interactions in Monolayer $MoSe_2$ near Ferroelectric Domain Walls in Periodically Poled $LiNbO_3$.

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[E-PS-5-17] Excitonic complexes in n-doped WS_2 monolayer

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[E-PS-5-18] Dynamical formation of a strongly correlated dark condensate of dipolar exciton

*Yotam Mazuz-Harpaz[1], Michal Zimmerman [1], Kobi Cohen[1], Michael Leveson[1], Ken West[2], Loren Pfeiffer[2], Maxim Khodas[1], Snir Gazit[1], Ronen Rapaport [1]
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[E-PS-5-19] Strongly Correlated Phases and Phase Transitions in Vertically Stacked Dipolar Excitons with Density Imbalance

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[E-PS-5-20] Manybody Enhanced Spin-Valley Effects in Monolayer MoS_2

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[E-PS-5-21] High Magnetic Field Spin-Valley-Split Shubnikov–de Haas Oscillations in a WSe_2 Monolayer

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[E-PS-5-22] Correlation Effects on Nonlinear Responses in Weyl-Kondo semimetals

*Akira Kofuji[1], Yoshihiro Michishita[1], Robert Peters[1] (1. Kyoto Univ. (Japan))

[E-PS-5-23] Relation Between Hall and Longitudinal Conductances in Disordered Magnetic Weyl Semimetal Thin Films

*Koji Kobayashi[1], Kentaro Nomura[1,2]
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[E-PS-5-24] Study of $InSb/Al_{0.2}Ga_{0.8}Sb$ asymmetric QW system through solving 8x8 Hamiltonian in presence of B field

*Mehdi Pakmehr[1], Mohammad H. Gholami[2]
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[E-PS-5-25] Investigation of Plasmon Resonances of 2D Electron Gas in InGaN/GaN Quantum Wells by Terahertz Time-Domain Spectroscopy

*Evgeny R. Burmistrov[1], Lev P. Avakyants[1]
(1. M.V. Lomonosov Moscow State University (Russia))

[E-PS-5-26] Increasing Band Gap Energies in Thin Layers of $HfTe_5$

*Lars Thole[1], Christopher Belke[1], Sonja Locmelis[2], Hennrik Schmidt[1], Peter Behrens[2,3], Rolf J. Haug[1,3]
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[E-PS-5-27] Growth of high-quality Bi_2Te_3 thin films by pulsed laser deposition

*Yusuke Tanaka[1], Yoji Kunihashi[1], Katsuya Oguri[1], Hideki Gotoh[1], Yoshiharu Krockenberger[1]
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[E-PS-5-28] Electrical Transport Properties of Vanadium Doped Bi_2 $Te_{2.4}$ Se 0.6

Christian Riha[1], Birkan Düzel[1], Karl Graser[1], *Olivio Chiatti[1], Evangelos Golias[2], Jaime Sánchez Barriga Sánchez-Barriga[2], Oliver Rader[2], Oleg E. Tereshchenko[3], Saskia F. Fischer[1]
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[E-PS-5-29] Tunneling Spectroscopy of Ultrathin $NbSe_2$ at High Magnetic Field

*Hadar Steinberg[1], Marko Kuzmanovic[2], Tom Dvir[1,3], David LeBoeuf[3], Stefan Ilic[4], David Mockli[1], Menashe Haim[1], Stefan Kraemer[3], Maxim Khodas[1], Manuel Houzet[3], Julia S. Meyer[4], Marco Aprili[2], Charis H. L. Quay[2]
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[E-PS-5-30] Decoupling of superconducting layers in $[(SnSe)_{1+\delta}]_n[NbSe_2]_m$ ferecrystals

*Olivio Chiatti[1], Klara Mihov[1], Martina Trahms[1], Theodor Griffin[1], Corinna Grosse[1], Danielle Hamann[2], Kyle Hite[2], Matty B. Alemayehu[2], David C. Johnson[2], Saskia F. Fischer[1]
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[E-PS-5-31] Magnon-Polarons in van der Waals Antiferromagnet $FePS_3$

*Diana Vaclavkova[1], Mainak Palit[2], Jan Wyzula[1], Somsubhra Ghosh [2], Alex Delhomme[1], Sujan Maity [2], Piotr Kapuściński[3,1], Anudeepa Ghosh[2], Martin Veis[4,1], Magdalena Grzeszczyk[5,1], Clement Faugeras[1], Milan Orlita[1], Subhadeep Datta[2], Marek Potemski[1,5]
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[E-PS-5-32] Effective Model of Antiferromagnetic Dirac Electron System CuMnAs and Electromagnetic Response

*Haruki Kimura[1], Kentaro Nomura[1,2]
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[E-PS-5-33] Attractive Skyrmions under Magneto-Crystalline Anisotropy in 2D Chiral Magnets

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M-PS-4

[M-PS-4-01] Super-Semi Interaction in GaAs/AlGaAs Shallow Inverted 2DESs

*Clemens Todt[1], Elcin Külah[1], Erik Cheah[1], Rüdiger Schott[1], Christian Reichl[1], Mihai Gabureac[1], Stefan Fält[1], Werner Dietsche[1], Werner Wegscheider[1]
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[M-PS-4-02] Wafer Scale Density Modulation of Self-Assembled Quantum Dots by Epitaxial Surface Roughness Control

*Nikolai Bart[1], Nikolai Spitzer[1], Peter Zajac[1], Marcel Schmidt[1], Andreas Dirk Wieck[1], Arne Ludwig[1] (1. Ruhr-Universitaet Bochum (Germany))

[M-PS-4-03] Quantitative characterization of current-induced spin-orbit torques in a perpendicularly magnetized GaMnAs single film

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[M-PS-4-04] Density of State Oscillations in InAs/AlSb/GaSb Bilayer Systems

*Amina Solano Lopes Ribeiro[1], Ruediger Schott[1], Christian Reichl[1], Werner Dietsche[1], Werner Wegscheider[1] (1. ETH Zurich (Switzerland))

[M-PS-4-05] Tunable quantum confinement of neutral excitons using electric fields and exciton-charge interactions

*Puneet A. Murthy[1], Deepankur Thureja[1], Atac Imamoglu[1], Tomasz Smolenski[1], Alexander Popert[1], Thibault Chervy[1], Xiaobo Lu[1], Song Liu[2], Katayun Barmak[2], Kenji Watanabe[3], Takashi Taniguchi[3], David J. Norris[1], Martin Kroner[1]
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[M-PS-4-06] Parity-dependent cotunneling spectroscopy and shot noise in a hybrid superconductor-nanowire quantum dot: a role of spin-flip effect

*Keiko Takase[1], Yasuhiro Utsumi[2,1], Yamato Ashikawa[1], Guoqiang Zhang[1], Kouta Tateno[1], Yuma Okazaki[1], Satoshi Sasaki[1]
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[M-PS-4-07] Theoretical analysis of optically controlled parity-time symmetry in optomechanics

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