

Monday, July 25

Opening (8:40-9:00)

Session A: Dirac fermions and Landau-level spectroscopy

Mo-A-1 (9:00-9:30)

**Magnetotunnelling spectroscopy of Dirac-Weyl fermions in graphene-hBN transistors
(Invited)**

Laurence Eaves

Mo-A-2 (9:30-10:00)

**Dirac matter: Magneto-optical studies
(Invited)**

Marek Potemski

Mo-A-3 (10:00-10:30)

**Direct measurements of the exciton binding energy and effective masses for organic lead tri-halide perovskite semiconductors
(Invited)**

A. Miyata, K. Galkowski, A. Mitioglu, P. Plochocka, O. Portugall, G.E. Eperon, J.T-W. Wang, T. Stergiopoulos, S.D. Stranks, H.J. Snaith, and R.J. Nicholas

Coffee break (10:30-11:00)

Session B: van der Waals heterostructures

Mo-B-1 (11:00-11:30)

**Tunable quantum Hall states and electron interactions in few-layer van der Waals heterostructures
(Invited)**

Chun Ning Lau

Mo-B-2 (11:30-11:50)

Quantum Hall effect in a slightly twisted bilayer graphene

Satoru Masubuchi, Naoko Inoue, Yuta Asakawa, Reina Kashiwagi, Sei Morikawa, Kenji Watanabe, Takashi Taniguchi, and Tomoki Machida

Mo-B-3 (11:50-12:10)

Quantum Hall effect in ultrahigh mobility two-dimensional hole gas of black phosphorus

Gen Long, Denis Maryenko, Junying Shen, Shuigang Xu, Jianqiang Hou, Zefei Wu, Wing Ki Wong, Tianyi Han, Jiangxi Lin, Yuan Cai, Rolf Lortz, and Ning Wang

Conference Photo (12:10-12:30)

Lunch (12:30-14:00)

Session C: Weyl semimetals

Mo-C-1 (14:00-14:30)

**Topological semimetals: topology, symmetry, and materials
(Invited)**

Shuichi Murakami, Motoaki Hirayama, Ryo Okugawa, Shoji Ishibashi, and Takashi Miyake

Mo-C-2 (14:30-15:00)

**Large magnetoresistance and the Fermi surface topology of the NbP-type Weyl semimetals
(Invited)**

Binghai Yan

Mo-C-3 (15:00-15:30)

**Phase transition in Weyl semimetal TaP in an intense magnetic field
(Invited)**

Shuang Jia

Coffee break (15:30-16:00)

Session D: Edge excitations in quantum Hall systems

Mo-D-1 (16:00-16:30)

**Wigner function of a quantum Hall edge channel driven at GHz frequency
(Invited)**

A. Marguerite, C. Cabart, J.M. Berroir, B. Plaçais, Y. Jin, A. Cavanna, and G. Fève

Mo-D-2 (16:30-17:00)

**Time-domain observation of spin-charge separation in copropagating quantum Hall edge channels
(Invited)**

Masayuki Hashisaka, Naoki Hiyama, Takafumi Akiho, Koji Muraki, and Toshimasa Fujisawa

Mo-D-3 (17:00-17:20)

**Ballistic hot-electron transport in a quantum Hall edge channel defined by a metal gate
Tomoaki Ota, Masayuki Hashisaka, Koji Muraki, and Toshimasa Fujisawa**

Poster Session I (17:20-19:00)

MoP-1

Temperature dependence of the multiple quantum effects on the magnetoresistance of granular carbon materials

Alex A. Ferreira, Geraldo M. Ribeiro, Elmo S. Alves, and José F. Sampaio

MoP-2

Quantum chaos of hydrogen analogs in an anisotropic crystal field under high magnetic field

Weihang Zhou, Zhanghai Chen, Bo Zhang, and S. C. Shen

MoP-3

Wave-packet splitting and negative refraction in biased bilayer graphene in crossed electric and magnetic fields

P. A. Maksym and H. Aoki

MoP-4

Valley spin valves in periodically buckled honeycomb lattices

Son-Hsien Chen

MoP-5

Two-dimensional magnetotransport in a black phosphorus naked quantum well

Nicholas Hemsworth, Vahid Tayari, Ibrahim Fakih, Alexandre Favron, Etienne Gauffrès, Richard Martel, Guillaume Gervais, and Thomas Szkopek

MoP-6

Quantum Hall transport in a monolayer-bilayer graphene heterojunction

H. Nakase, T. Osada, T. Taen, K. Uchida, K. Watanabe, and T. Taniguchi

MoP-7

Magnetotransport study of electronic band structure in tetralayer graphene using high-mobility graphene fabricated on h-BN

Taiki Hirahara, Shota Uchino, Ryoya Ebisuoka, Jumpei Onishi, Kenji Watanabe, Takashi Taniguchi, and Ryuta Yagi

MoP-8

Observation of crossing and anti-crossing of subband Landau levels in bernal trilayer graphene

Y. Asakawa, S. Masubuchi, N. Inoue, S. Morikawa, K. Watanabe, T. Taniguchi, and T. Machida

MoP-9

Influence of substrate interactions on the optical properties of hBN/WS₂ van der Waals heterostructures

Yusuke Hoshi, Rai Moriya, Miho Arai, Satoru Masubuchi, Takashi Kuroda, Kenji Watanabe, Takashi Taniguchi and Tomoki Machida

MoP-10

Ultra-high resolution $n = 0$ to 1 cyclotron resonance spectroscopy of graphene achieved by magagauss magnetic fields

Hiroaki Saito, Daisuke Nakamura, Hiroki Hibino, Kenichi Asano, and Shojiro Takeyama

MoP-11

Landau level spectroscopy of electron-electron interactions in graphene

C. Faugeras, S. Berciaud, P. Leszczynski, Y. Henni, K. Nogajewski, M. Orlita, T. Taniguchi, K. Watanabe, C. Forsythe, P. Kim, R. Jalil, A.K. Geim, D.M. Basko, and M. Potemski

MoP-12

Ultra-large quantum Hall plateau in graphene on SiC under very high magnetic field

M. Yang, O. Couturaud, W. Desrat, D. Kazazis, A. Michon, M. Pierre and M. Goiran, A. Cresti, W. Escoffier, and B. Jouault

MoP-13

High magnetic fields physics with low magnetic fields: quantum Hall effect in SiC graphene with permanent magnets

F.D. Parmentier, T. Cazimajou, D.C. Glatli, P. Roulleau, Y. Sekine, H. Hibino, H. Irie, and N. Kumada

MoP-14

Spatially inhomogeneous electron state deep in the extreme quantum limit of strontium titanate

Anand Bhattacharya, Brian Skinner, Guru Khalsa, and Alexey V. Suslov

MoP-15

High field magneto-transport in two-dimensional electron gas LaAlO₃/SrTiO₃

M. Yang, K. Han, M. Pierre, O. Toressin, S. Zeng, Z. Huang, Ariando, M. Coey, M. Goiran, and W. Escoffier

MoP-16

Metallic charge-ordering state neighboring massless Dirac fermion state in an organic conductor α -(BEDT-TTF)₂I₃

Kenta Yoshimura, Mitsuyuki Sato, Toshihiro Taen, and Toshihito Osada

MoP-17

Electronic states of bismuth thin films: a tight-binding analysis

K. Saito, H. Sawahata, J. Nagai, Y. Sawada, T. Komine, and T. Aono

MoP-18

Anomalous angular magnetoresistance in PbSnSe - a 3D Dirac semimetal

Mario Novak, Satoshi Sasaki, Kouji Segawa, and Yoichi Ando

MoP-19

Coupled charge and magnetization dynamics in Weyl semimetal

Daichi Kurebayashi and Kentaro Nomura

MoP-20

Edge transport over sub-millimeter distance in the 2D TI InAs/GaSb

S. Pezzini, C. Rava, S. Wiedmann, U. Zeitler, V. Cleric`o, E. Diez, V. Bellani, W. Yu, W. Pan, S.D. Hawkins, and J.F. Klem

MoP-21

Non-linear phenomena at and beyond quantum Hall breakdown in InGaAs/InP quantum well two-dimensional electron gas

V. Yu, M. Hilke, P. Poole, S. Studenikin, and D. G. Austing

MoP-22

Mechanism of energy relaxation in the system of Landau levels in quantum wells

Maksim P. Telenkov, Yury A. Mityagin, Vladislav V. Agafonov, and Kodihalli K. Nagaraja

MoP-23

Calculation of the weak antilocalization term in magneto-conductivity by counting all closed loops

Atsushi Sawada and Takaaki Koga

MoP-24

Linear magneto-resistance, resistance rule and its breakdown beyond $\nu = 1$ in ultra-high mobility GaAs quantum wells

T.Khoury, S.Wiedmann, C.Reichl, W.Wegscheider, U.Zeitler, N.E.Hussey, and J.C. Maan

MoP-25

Transport properties of quantum Hall electron system under optical vortex irradiation

K. Yagasaki, K. Oto, H. Mino, T. Omatsu, Y. Hirayama, and N. Kumada

MoP-26

Local detection of quadrupolar splitting in a triple gate quantum point contact

M. H. Fauzi and Y. Hirayama

MoP-27

The photovoltage detection of edge magnetoplasmon oscillations and strong magnetoplasmon resonance in a two-dimensional hole system

Jian Mi, Jianli Wang, Chi Zhang, L. N. Pfeiffer, and K. W. West

MoP-28

Fine structure in high-power microwave-induced resistance oscillations

Qianhui Shi, Michael Zudov, Ivan Dmitriev, Kirk Baldwin, Loren Pfeiffer, Kenneth West and Jurgen Smet

MoP-29

Giant B -periodic magnetoresistance oscillations in a two-dimensional electron gas with a quantum point contact

A.D.Levin, G.M.Gusev, Z.D.Kvon, A.K.Bakarov, S.A.Mikhailov, E.E.Rodyakina, and A.V.Latyshev

MoP-30

Magnetophonon oscillations of thermopower in two-subband systems

G. M. Gusev, A. D. Levin, O. E. Raichev, and A. K. Bakarov

MoP-31

Development of the polarization-angle phase shift over a finite frequency band in the microwave radiation-induced magnetoresistance oscillations

Han-Chun Liu, Rasanga L. Samaraweera, R. G. Mani, and W. Wegscheider

MoP-32

Study of overlap of radiation-induced magneto-resistance oscillations and bell-shape negative giant magnetoresistance in the GaAs/AlGaAs 2DES

Rasanga L. Samaraweera, Han-Chun Liu, Zhuo Wang, W. Wegscheider, and Ramesh G. Mani

Tuesday, July 26

Session E: Topological insulators and semimetals

Tue-E-1 (8:30-9:00)

Magnetotransport in topological insulator nanowires: spin helical Dirac fermions on a cylinder

(Invited)

Yong P. Chen

Tue-E-2 (9:00-9:20)

Asymmetric thermopower response of electron and hole surface states on the three-dimensional topological insulator strained HgTe

A. Jost, M. Bendias, C. Brüne, H. Buhmann, L. W. Molenkamp, J. C. Maan, U. Zeitler, and S. Wiedmann

Tue-E-3 (9:20-9:40)

Landau level spectroscopy of band-engineered InAs/GaSb quantum wells

Y. Jiang, Z. Jiang, D. Smirnov, S. Thapa, D. Saha, C.J. Stanton, S. D. Hawkins, J. F. Klem, and W. Pan

Tue-E-4 (9:40-10:00)

Crystalline spin-orbit interaction and the Zeeman splitting in semiconductors and semimetals

Yuki Fuseya, Hiroshi Hayasaka, Zengwei Zhu, Benoît Fauqué, Woun Kang, Bertrand Lenoir, and Kamran Behnia

Tue-E-5 (10:00-10:20)

Scanning tunneling microscopic investigation of the topological surface of a Weyl semimetal

Hao Zheng, Hsin Lin, Shuang Jia, and M. Zahid Hasan

Coffee break (10:20-10:50)

Session F: Unconventional materials and novel phases

Tue-F-1 (10:50-11:20)

Topological phenomena in novel quantum materials

(Invited)

Masashi Kawasaki

Tue-F-2 (11:20-11:50)

Novel Fermi surface in the Kondo insulator SmB₆

(Invited)

Suchitra Sebastian

Tue-F-3 (11:50-12:10)

Gate tuning of electronic sub-bands in LaAlO₃/SrTiO₃ interfaces

Lucas Tang, Sander Smink, Jaap Geessinck, Abimanuya Rana, Ankur Rastogi, Gertjan Koster, W.G van der Wiel, Hans Hilgenkamp, Alexander Brinkman, J.C Maan, Alix McCollam, and Uli Zeitler

Tue-F-4 (12:10-12:30)

Spin textures and spin waves in magnetically-doped Dirac/Weyl semimetals

Yasufumi Araki and Kentaro Nomura

Lunch (12:30-14:00)

Session G: Transition metal dichalcogenides

Tue-G-1 (14:00-14:30)

**Field-induced Ising superconductivity in transition metal dichalcogenides
(Invited)**

J. M. Lu, O. Zeliuk, I. Leermakers, Noah F. Q. Yuan, U. Zeitler, K. T. Law, and J. T. Ye

Tue-G-2 (14:30-15:00)

**Magnetoluminescence and valley polarized state of two-dimensional electron gas in WS₂ monolayers
(Invited)**

Pawel Hawrylak

Tue-G-3 (15:00-15:30)

**Phase engineering of MoTe₂ thin film
(Invited)**

Young Hee Lee

Coffee break (15:30-16:00)

Session H: Emergent phases in quantum Hall systems

Tue-H-1 (16:00-16:30)

**News from Princeton Flatlands: probing exotic phases of interacting 2D systems
(Invited)**

Mansour Shayegan

Tue-H-2 (16:30-16:50)

Magnetotransport studies of high mobility MgZnO/ZnO heterostructures in fields up to 33 Tesla

D. Maryenko, J. Falson, Y. Kozuka, A. Tsukazaki, and M. Kawasaki

Tue-H-3 (16:50-17:10)

Wigner solid within 1/2 fractional quantum Hall effect

A. T. Hatke, Yang Liu, L. W. Engel, L. N. Pfeiffer, K.W. West, K.W. Baldwin, and M. Shayegan

Tue-H-4 (17:10-17:30)

Reorientations of quantum Hall stripes by in-plane magnetic field

Qianhui Shi, Michael Zudov, John Watson, Geoff Gardner, and Michael Manfra

Poster Session II (17:30-19:10)

TuP-1

Monolayer graphene magnetotransport modified by the inert gas adsorption in the quantum Hall regime

A.Fukuda, D. Terasawa, Y. Kanai, and K. Matsumoto

TuP-2

Electronic transport in osmium-decorated graphene

Jamie A. Elias, Patrick Chao, Zack Weinstein, and Erik A. Henriksen

TuP-3

Disorder effects in electrolyte gating structures evaluated by graphene transport measurements

Norio Kumada, Andrew Browning, Yoshiaki Sekine, Hiroshi Irie, Koji Muraki, and Hideki Yamamoto

TuP-4

MoS₂ surface states enhance the conductivity of capped zigzag graphene ribbon

Shih-Jye Sun

TuP-5

Electronic states of zigzag-edge nanoribbon lateral superlattices under magnetic fields

Futo Hashimoto, Nobuya Mori, Osamu Kubo, and Mitsuhiro Katayama

TuP-6

Brillouin zone folding and anisotropic band structure in moiré superlattices in bilayer graphene/h-BN heterostructure

Ryoya Ebisuoka, Shota Uchino, Taiki Hirahara, Jumpei Onishi, Kenji Watanabe, Takashi Taniguchi, and Ryuta Yagi

TuP-7

Enhancement of resistance in ballistic graphene sawtooth-shaped npn junctions

Sei Morikawa, Quentin Wilmart, Satoru Masubuchi, Kenji Watanabe, Takashi Taniguchi, Bernard Plaçais, and Tomoki Machida

TuP-8

Van der Waals assembly of layered ferromagnetic dichalcogenide

Miho Arai, Yuji Yamasaki, Rai Moriya, Satoru Masubuchi, Keiji Ueno, and Tomoki Machida

TuP-9

Cyclotron resonance study of large-area bilayer graphene on SiC

Kanji Takehana, Yasutaka Imanaka, Tomoaki Kaneko, Yoshiaki Sekine, Makoto Takamura, and Hiroki Hibino

TuP-10

Thickness dependence of high magnetic-field induced density-wave transition in graphite

Toshihiro Taen, Kazuhito Uchida, and Toshihito Osada

TuP-11

Magnetic-field-induced closure of the spin gap in the Kondo insulator YbB₁₂

T. T. Terashima, A. Ikeda, Y. H. Matsuda, and F. Iga

TuP-12

Two-step splitting of spin-forbidden excitonic transition in Cr₂O₃ under ultra-high magnetic fields

Daisuke Nakamura and Shojiro Takeyama

TuP-13

Quantum oscillations in optically induced high mobility LAO/STO

Inge Leermakers, A.S. Rana, A. Brinkman, H. Hilgenkamp, J.C. Maan, and U. Zeitler

TuP-14

Magnetic field imaging with spin ensembles in diamond using frequency modulation of microwave

Yukihiro Miura, Satoshi Kashiwaya, and Shintaro Nomura

TuP-15

Simulation of electron transmittance and spin polarization in gate-controllable double quantum wells

Kiminori Okamoto, Atsushi Sawada and Takaaki Koga

TuP-16

Local probing of dynamic nuclear polarization induced by QHE breakdown current by using magneto-optical Kerr effect

J. Irobe, Y. Ariumi, R. Ishibashi, K. Oto, Y. Hirayama, and N. Kumada

TuP-17

Theoretical models for hyperfine mediated electronic transport in the integer quantum Hall regime

Aniket Singha, Hamzah Fauzi, Yoshiro Hirayama, and Bhaskaran Muralidharan

TuP-18

Knight shift measurements by using resistively-detected NMR based on quantum Hall effect breakdown

Rei Higashida, Katsushi Hashimoto, Shota Shirai, and Yoshiro Hirayama

TuP-19

Metal-insulator transition appeared in the quasi-one-dimensional transport of the fractional quantum hall states

S. Xiang, S. Xiao, J. P. Bird, N. Aoki, and Y. Ochiai

TuP-20

Ultrahigh magnetic field spectroscopy on 3D topological insulators Bi₂Se₃, Bi₂Te₃ and Sb₂Te₃

A. Miyata, Z. Yang, A. Surrente, P. Plochocka, O. Portugall, T. Hesjedal, and R.J. Nicholas

TuP-21

Intrinsic Aharonov-Bohm effect in topological insulator nanowire

Yukinori Yoshimura and Ken-Ichiro Imura

TuP-22

Transport anisotropy in InAs/GaSb quantum wells

Zhongdong Han, Tingxin Li, Gerard Sullivan, and Rui-Rui Du

TuP-23

Quantum Hall effect in HgCdTe/HgTe heterostructures with inverted band spectrum: from quantum tunneling to classical percolation

S.V. Gudina, Yu.G. Arapov, V.N. Neverov, S.M. Podgornykh, M.R. Popov, N.G. Shelushinina, G.I. Harus, M.V. Yakunin, S.A. Dvoretzky, and N.N. Mikhailov

TuP-24

Magnetoresistance in a quasiballistic 2D topological insulator in wide HgTe quantum well

E. B. Olshanetsky, Z. D. Kvon, G. M. Gusev, N. N. Mikhailov, and S. A. Dvoretzky

TuP-25

Microwave induced capacitance oscillations

G. M. Gusev, A. D. Levin, O. E. Raichev, Z. S. Momtaz, and A. K. Bakarov

TuP-26

Beating pattern in microwave-induced resistance oscillations

Qianhui Shi, Michael Zudov, Kirk Baldwin, Loren Pfeiffer, and Kenneth West

TuP-27

Microwave photoresistance in an ultra-high-quality GaAs quantum well

Qianhui Shi, Sergei Studenikin, Michael Zudov, Kirk Baldwin, Loren Pfeiffer, and Kenneth West

TuP-28

Tunneling-junctions on the cleaved-edges of InAs quantum well: fabrication and characterization

Xiaoxue Liu, Tingxin Li, Bingbing Tong, Zhongdong Han, Gerard Sullivan, Chi Zhang, and Rui-Rui Du

TuP-29

Temperature scaling of the critical current in long ballistic superconducting graphene junctions

Chung Ting Ke, Ivan V. Borzenets, Francois Amet, Michihisa Yamamoto, Seigo Tarucha, and Gleb Finkelstein

TuP-30

Proximity effect induced anomalous magnetoresistance in the 3D topological insulator Bi_2Te_3

Zhuo Wang, Tianyu Ye, and R. G. Mani

TuP-31

Microwave/terahertz cyclotron resonance in the high mobility GaAs/AlGaAs 2D electron system

Annika Kriisa, H-C. Liu, R. L. Samaraweera, M. S. Heimbeck, H. O. Everitt, W. Wegscheider, and R. G. Mani

TuP-32

Magnetoresistance oscillations induced by bichromatic microwave excitation in the high mobility GaAs/AlGaAs system

Binuka Gunawardana, Han-Chun Liu, Rasanga L. Samaraweera, W. Wegscheider, and R. G. Mani

Wednesday, July 27

Session I: Excitons in transition metal dichalcogenides

Wed-I-1 (8:30-9:00)

Magneto-optical spectroscopy of excitons in atomically-thin semiconductors using pulsed magnetic fields

(Invited)

Andreas V. Stier, Scott A. Crooker, Kathy M. McCreary, Berend T. Jonker, and Junichiro Kono

Wed-I-2 (9:00-9:20)

Magneto excitons in atomically thin TMDs

A. Surrente, A. Mitioglu, K. Galkowski, L. Klopotoski, D. Dumcenco, A. Kis, D. K. Maude and P. Plochocka

Wed-I-3 (9:20-9:40)

Tuning valley polarization in a WSe₂ monolayer with a tiny magnetic field

T. Smoleński, M. Goryca, T. Kazimierzuk, M. Koperski, C. Faugeras, A. Bogucki, K. Nogajewski, M. Potemski, and P. Kossacki

Wed-I-4 (9:40-10:00)

Dark and bright excitons in transition metal dichalcogenides monolayers: a high field magneto-optical study

M. Koperski, A. Arora, K. Nogajewski, A. Slobodeniuk, D. Basko, and M. Potemski

Coffee break (10:00-10:30)

Session J: Fractional quantum Hall systems

Wed-J-1 (10:30-11:00)

Competition of topological and nematic phases in the two-dimensional electron gas

(Invited)

K.A. Schreiber, N. Samkharadze, G.C. Gardner M.J. Manfra, E. Fradkin, L.N. Pfeiffer, K.W. West, and G.A. Csáthy

Wed-J-2 (11:00-11:30)

Title: to be announced

(Invited)

Cory Dean

Wed-J-3 (11:30-11:50)

Spin and the Coulomb gap of the composite fermion liquid

J.P. Eisenstein, L.N. Pfeiffer, and K.W. West

Excursion (11:50-)

Banquet (19:00-21:00)

Thursday, July 28

Session K: High Landau levels and new quantum Hall states

Thu-K-1 (8:30-9:00)

Specific heat measurement in the 5/2 fractional quantum Hall state

(Invited)

Benjamin Schmidt, Keyan Bennaceur, Sam Gaucher, Guillaume Gervais, Loren Pfeiffer, and Ken West

Thu-K-2 (9:00-9:20)

Effect of alloy disorder on quantum Hall stripes and their orientation

Qianhui Shi, Michael Zudov, John Watson, Geoff Gardner, and Michael Manfra

Thu-K-3 (9:20-9:40)

Novel fractional quantum Hall states in graphene

Rebeca Ribeiro-Palau, Shaowen Chen, James Hones, and Cory Dean

Thu-K-4 (9:40-10:00)

Landau quantization in a twisted graphene bilayer

Johannes C. Rode, Dmitri Smirnov, Hennrik Schmidt, and Rolf J. Haug

Coffee break (10:00-10:30)

Session L: Nanotube, nanowire, and surface/edge states

Thu-L-1 (10:30-11:00)

Noise detection of the field enhancement of Kondo correlations in a carbon nanotube quantum dot

(Invited)

M. Ferrier, T. Hata, T. Arakawa, Y. Teratani, R. Sakano, A. Oguri, and K. Kobayashi

Thu-L-2 (11:00-11:20)

Quantum Hall edge probed by Kondo effect

Alexander W. Heine, Daniel Tutuc, Gertrud Zwicknagl, and Rolf J. Haug

Thu-L-3 (11:20-11:40)

Valley coupling and edge modes in finite-length single-wall carbon nanotubes

Wataru Izumida, Rin Okuyama, Ai Yamakage, and Riichiro Saito

Thu-L-4 (11:40-12:00)

Magneto-transport properties of quasi-ballistics InAs nanowires under high magnetic field

Florian Vigneau, Ivan Duchemin, Walter Escoffier, Philippe Caroff, Yann-Michel Niquet, Renaud Leturcq, Bertrand Raquet, and Michel Goiran

Thu-L-5 (12:00-12:20)

Magnetotransport in the Weyl semimetal – the role of the topological surface states

Yuya Ominato and Mikito Koshino

Lunch (12:20-14:00)

Session M: Magnetospectroscopy

Thu-M-1 (14:00-14:30)

Population and polarization dynamics in Landau-quantized graphene - evidence for strong Auger scattering

(Invited)

S. Winnerl, M. Mittendorff, J. C. König-Otto, F. Wendler, E. Malic, A. Knorr, A. Pashkin, H. Schneider, and M. Helm

Thu-M-2 (14:30-15:00)

Magnetic ground state of an individual Fe²⁺ ion in strained semiconductor quantum dot
(Invited)

T. Smoleński, T. Kazimierczuk, J. Kobak, M. Goryca, A. Golnik, P. Kossacki, and W. Pacuski

Thu-M-3 (15:00-15:20)

Magnetic and non-magnetic InSe nanosheets

A. Patané, G.W. Mudd, Z.R. Kudrynskiy, M. Bhuiyan, M. Matsuura, M. Molas, O. Makarovskiy, L. Eaves, K. Nogajewski, M. Potemski, V. Zólyomi, X. Chen, V. I. Fal'ko, and Z.D. Kovalyuk

Thu-M-4 (15:20-15:40)

Experimental approval of the extended flat bands and of the bulk subbands in rhombohedral multilayer graphene

M. Y. Henni, H. P. Ojeda Collado, K. Nogajewski, M. R. Molas, G. Usaj, C. A. Balseiro, M. Orlita, M. Potemski, and C. Faugeras

Coffee break (15:40-16:10)

Session N: New approaches to GaAs 2D electron systems

Thu-N-1 (16:10-16:30)

Microwave-induced resistance oscillations probed by surface acoustic waves

Benedikt Friess, Loren Pfeiffer, Ken West, Vladimir Umansky, Klaus von Klitzing, and Jurgen Smet

Thu-N-2 (16:30-16:50)

Magnetooscillations of phonon-drag voltage and signature of zero resistance states induced by microwave in two-dimensional electron systems

Z.S. Momtaz, A. D. Levin, G. M. Gusev, O. E. Raichev, and A. K. Bakarov

Thu-N-3 (16:50-17:10)

From Mahan excitons to Landau levels at high magnetic fields: 2DFT spectroscopy reveals hidden quantum correlations

J. Paul, C. Liu, C. E. Stevens, P. Dey, J. L. Reno, S. A. McGill, D. J. Hilton, and D. Karaiskaj

Thu-N-4 (17:10-17:30)

Quantum Hall ferromagnet versus skyrmions

B. A. Piot, W. Desrat, D.K. Maude, D. Kazazis, A. Cavanna, and U. Gennser

Thu-N-5 (17:30-17:50)

Nonlocal polarization feedback in a fractional quantum Hall ferromagnet

S. Henne, B. A. Braem, S. Baer, L. Tiemann, P. Sohi, D. Wehrli, A. Hofmann, C. Reichl, W. Wegscheider, C. Rössler, T. Ihn, K. Ensslin, M. S. Rudner, and B. Rosenow

Friday, July 29

Session O: Graphene transport

Fri-O-1 (8:30-9:00)

Valley Hall effect in bilayer graphene with electrically broken inversion symmetry (Invited)

Yuya Shimazaki, Michihisa Yamamoto, Ivan V. Borzenets, Kenji Watanabe, Takashi Taniguchi, and Seigo Tarucha

Fri-O-2 (9:00-9:20)

Shot noise of a graphene p–n junction in the quantum Hall regime

N. Kumada, F.D. Parmentier, H. Hibino, D. C. Glattli, and P. Roulleau

Fri-O-3 (9:20-9:40)

Magneto-transport of high-mobility graphene antidot lattices made on h-BN - ballistic and phase coherent transport

Ryuta Yagi, Ryoji Sakakibara, Ryoya Ebisuoka, Jumpei Onishi, Kenji Watanabe, Takashi Taniguchi, and Yasuhiro Iye

Fri-O-4 (9:40-10:00)

Breakdown of the quantum Hall effect and charge transfer in epitaxial graphene at high magnetic fields

J. A. Alexander-Webber, J. Huang, D. K. Maude, T. J. B. M. Janssen, A. Tzalenchuk, V. Antonov, T. Yager, S. Lara-Avila, S. Kubatkin, R. Yakimova, and R. J. Nicholas

Fri-O-5 (10:00-10:20)

An ideal and practical quantum Hall resistance standard in graphene devices

J. Brun-Picard, R. Ribeiro-Palau, F. Lafont, D. Kazazis, A. Michon, F. Cheynis, O. Couturaud, C. Consejo, B. Jouault, W. Poirier, and F. Schopfer

Coffee break (10:20-10:50)

Session P: Quantum Hall edge and superconducting junction

Fri-P-1 (10:50-11:20)

New paradigm for edge reconstruction of hole-conjugate fractional states (Invited)

R. Sabo, I. Gurman, A. Rosenblatt, F. Lafont, D. Banitt, M. Heiblum, V. Umansky, and D. Mahalu

Fri-P-2 (11:20-11:40)

Non-equilibrium states in copropagating quantum Hall edge channels

Ryo Nakazawa, Kosuke Itoh, Masayuki Hashisaka, Koji Muraki, and Toshimasa Fujisawa

Fri-P-3 (11:40-12:00)

Andreev reflection at a junction of spin-resolved quantum Hall state and superconductor

Sadashige Matsuo, Kento Ueda, Shoji Baba, Hiroshi Kamata, Javad Shabani, Christopher Palmstrom, and Seigo Tarucha

Fri-P-4 (12:00-12:20)

Supercurrent in the quantum Hall regime

C.-T. Ke, F. Amet, I. V. Borzenets, J. Wang, K. Watanabe, T. Taniguchi, R. S. Deacon, M. Yamamoto, Y. Bomze, S. Tarucha, and G. Finkelstein

Closing