Program Leaflet

18th International Conference on Electronic Properties of Two-Dimensional Systems

2009.7.19 ∼ 7.24

Schedule

Sunday July 19th

16:00 ∼ 18:00 Registration (at Registration desk)
17:00 ∼ 19:00 Welcome Reception (Sponsored by Nippon Cryogenic Ltd.)

Session Timetable

<table>
<tr><th></th><th>7/20 (Mon)</th><th>7/21 (Tue)</th><th>7/22 (Wed)</th><th>7/23 (Thu)</th><th>7/24 (Fri)</th></tr>
<tr><td>9:00</td><td rowspan="2"></td><td rowspan="3">Session
E2
Spin related
phenomena</td><td rowspan="3">Session
E5
Quantum Hall
effect II</td><td rowspan="3">Session
E6
Graphene</td><td rowspan="3">Session
E9
Quantum transport</td></tr>
<tr><td>10:00</td><td>Opening</td></tr>
<tr><td></td><td rowspan="2">Plenary 1</td><td>Coffee</td><td>Coffee</td><td>Coffee</td><td>Coffee</td></tr>
<tr><td>11:00</td><td rowspan="4">Session
E3
Optical
phenomena</td><td rowspan="2">Plenary 3</td><td>Continued</td><td rowspan="2">Pleanry 5</td></tr>
<tr><td></td><td>Pleanry 2</td><td rowspan="2">Session
E7
Coherent manipulation
of quantum
mechanical freedom</td></tr>
<tr><td>12:00</td><td>Photo</td><td rowspan="2">Plenary 4</td><td rowspan="2">Plenary 6</td></tr>
<tr><td></td><td rowspan="2">Lunch</td><td rowspan="2">Lunch</td><td rowspan="4">Free afternoon
or
optional
excursion</td><td rowspan="2">Lunch</td><td>Closing</td></tr>
<tr><td>13:00</td><td rowspan="2"></td></tr>
<tr><td>14:00</td><td rowspan="2">Session
E1
NEMS
and
new techniques</td><td rowspan="2">Session
E4
Quantum Hall
effect and
coherent transport</td><td rowspan="2">Session
E8
Electron-environment
interaction</td></tr>
<tr><td>15:00</td></tr>
<tr><td>16:00</td><td rowspan="2">Poster Session
Mo-eP</td><td rowspan="2">Poster Session
Tu-eP</td><td rowspan="2">Poster Session
Th-eP</td></tr>
<tr><td>17:00</td></tr>
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Monday July 20th

Opening Ceremony (Main Hall) 10:00 – 10:30

Session Plenary 1,2 (Main Hall) 10:30 – 12:00

PL1 10:30 – 11:15 **David D. Awschalom** (*Center for Spintronics and Quantum Computation, University of California, Santa Barbara, CA 93106 USA*)
Manipulating single spins and coherence in semiconductors

PL2 11:15 – 12:00 **Yoshihisa Yamamoto**[1,2] ([1]*E. L. Ginzton Laboratory, Stanford University, CA, USA,* [2]*National Institute of Informatics, Tokyo, Japan*)
Bose-Einstein condensation and superfluidity of exciton-polaritons

12:00 – 12:15 **Conference Photo**

12:15 – 13:45 **Lunch Break**

Session E1 (Main Hall) 13:45 – 16:00 NEMS and new techniques

E1a 13:45 – 14:15 **Hirosh. Yamaguchi** (Invited) (*NTT Basic Research Laboratories, Atsugi, Kanagawa 243-0198, Japan*)
Heterostructure-based Micro/Nanomechanical Systems

E1b 14:15 – 14:30 **A. K. Hüttel**[1,2]**, G. A. Steele**[1]**, B. Witkamp**[1]**, M. Poot**[1]**, L. P. Kouwenhoven**[1]**, H. S. J. van der Zant**[1] ([1]*Kavli Institute of Nanoscience, Delft University of Technology, PO Box 5046, 2600 GA Delft, The Netherlands,* [2]*Institute for Experimental and Applied Physics, University of Regensburg, 93040 Regensburg, Germany*)
Carbon nanotubes as ultra-high quality factor mechanical resonators

E1c 14:30 – 14:45 **A. Mah**[1]**, F.D. Parmentier**[1]**, J.-M. Berroir**[1]**, G. Fève**[1]**, T. Kontos**[1]**, B. Plaçais**[1]**, D.C. Glattli**[1,2] ([1]*Laboratoire Pierre Aigrain, Ecole Normale Suprieure., 24 ue Lhomond 75005 Paris, France,* [2]*Service de Physique de l'tat condens, CEA Saclay., F-91191 Gif-sur-Yvette, France*)
Ultra sensitive finite frequency noise measurement setup to study the statistical emission noise of an on-demand coherent single electron source

E1d 14:45 – 15:00 **F. . Martins**[1]**, B. Hackens**[1]**, L. Gence**[1]**, S. Baltazar**[2]**, M. Pala**[2]**, H. Sellier**[3]**, L. Desplanque**[4]**, X. Wallart**[4]**, S. Huant**[3]**, V. Bayot**[1,3] ([1]*DICE lab, Universit Catholique de Louvain, 3 place du levant, Louvain-la-Neuve 1348, Belgium,* [2]*IMEP-LAHC-MINATEC (UMR CNRS/INPG/UJF 5130), Grenoble, France,* [3]*Institut Néel, CNRS, and Université Joseph Fourier, Grenoble, France,* [4]*IEMN, Villeneuve d'Ascq, France*)
Imaging electron transport close to filling factor ν = 2 in a quantum ring

E1e 15:00 – 15:15 **D. Maryenko[1], F. Ospald[1], B. Rosenow[1], H. Lu[2], A. C. Gossard[2], V. Umansky[3], K. von Klitzing[1], J. H. Smet[1]** (*[1]Max-Planck-Institute for Solid State Research, Stuttgart, Heisenbergstr. 1 70569, Germany, [2]Materials Department, University of California Santa Barbara, Santa Barbara, California 93106-5050, USA , [3]Department of Condensed Matter Physics, Weizmann Institute, Rehovot, 76100, Israel*)

Ultrafast time-resolved transport studies of a two-dimensional electron system

E1f 15:15 – 15:30 **E. . Hoffmann[1], N. Nakpathomkun[1], H. Nilsson[2], A. . Persson[1], L. Samuelson[2], H. Linke[1,2]** (*[1]Physics Department and Materials Science Institute, University of Oregon, 1274 University of Oregon, Eugene, Oregon 97403-1274, USA, [2]Solid State Physics/The Nanometer Structure Consortium, Lund University, Box 118, S-221 00, Lund, Sweden*)

High-efficiency thermoelectric quantum dots in InAs/InP nanowires

E1g 15:30 – 15:45 **D. Konstantinov, K. Kono** (*Low Temperature Physics Laboratory, RIKEN, 2-1 Hirosawa, Wako, Saitama 3510198, Japan*)

A new type of microwave-induced resistance oscillation observed in a nondegenerate 2DES on liquid helium

E1h 15:45 – 16:00 **Y. Kawano[1,2], K. Ishibashi[1]** (*[1]Advanced Device Laboratory, RIKEN (The Institute of Physical and Chemical Research), 2-1 Hirosawa, Wako, Saitama 351-0198, Japan, [2]PRESTO, Japan Science and Technology Agency (JST), 5-3 Yonbancho, Chiyoda-ku, Tokyo, Japan*)

On-chip near-field terahertz detection based on a two-dimensional electron gas

Poster Session Mo-eP (Meeting Room 501, 502) 16:00–18:00

Mo-eP1 **ZS. Tao, ZM. Jiang, F. Lu** (*Department of Physics,Fudan University, No.220 Handan Road 200433, China*)

The properties of Ge quantum dots on strained SiGe layer measured by Photoluminescence and Deep Level Transient Spectroscope

Mo-eP2 **A. A. Sherstobitov[1], G.M. Minkov[1], A.V. Germanenko[2], O.E. Rut[2], I.V. Soldatov[2], B.N. Zvonkov[3]** (*[1]Institute of Metal Physics RAS, Ekaterinburg, Russia, [2]Ural State University, Ekaterinburg, Russia, [3]University of Nizhnii Novgorod, Nizhnii Novgorod, Russia*)

Probe of the artificial disorder by the capacitance - voltage characteristics

Mo-eP3 **Y. H. Shin[1], Y. H. Park[1], S. J. Noh[1], J. W. Hyun[1], C. H. Perry[2], J. A. Simmons[3], T. Takamasu[4], Yongmi. Kim[1,4]** (*[1]Department of Applied Physics, Dankook University, Yongin 448-701, Korea, [2]Department of Physics, Northeastern University, Boston, MA 02115, USA, [3]Sandia National Laboratories, , Albuquerque, NM 87185, USA, [4]National Institute for Materials Science, Tsukuba, Ibaraki 305-0003, Japan*)

Exciton Dynamics in Modulation-doped Asymmetric Double-well Structures in Magnetic Fields

Mo-eP4 **M.V. Entin[1], M.M. Mahmoodian[1,2], L.I. Magarill[1,2]** (*[1]Institute of Semiconductor Physics, Siberian Branch, Russian Academy of Sciences, , [2]Novosibirsk State University,*)

Physical effects in low-dimensional systems subjected to local high-frequency field

Mo-eP5 **E. Räsänen[1,2], S. Pittalis[2], K. Capelle[2,3], C. R. Proetto[2]** (*[1]Nanoscience Center, Department of Physics, University of Jyväskylä, P. O. Box 35, FI-40014 University of Jyväskylä, Finland, [2]Institut für Theoretische Physik, Freie Universität Berlin, Arnimallee 14, D-14195 Berlin, Germany, [3]Instituto de Fsica de So Carlos, Universidade de So Paulo, Caixa Postal 369, So Carlos, So Paulo 13560-970, Brazil*)

Lower bounds on the exchange-correlation energy in reduced dimensions

Mo-eP6 **T. Kaizu, Y. Imanaka, K. Takehana, T. Takamasu** (*Quantum Dot Research Center, National Institute for Materials Science, 3-13 Sakura, Tsukuba, Ibaraki 3050003, Japan*)

Magnetotransport properties of Ytterbium doped $Al_xGa_{1-x}As$/GaAs two-dimensional electron systems

Mo-eP7 **S. Ono, H. Shima** (*Department of Applied Physics, Hokkaido University, N13, W8, Kita-ku, Sapporo, Hokkaido 060-8628, Japan*)

Low-Temperature Resistivity of Periodic Curved Surfaces

Mo-eP8 **L. M. Thu, O. Voskoboynikov** (*Department of Electronics Engineering, National Chiao Tung University, 1001 Ta Hsueh Rd., Hsinchu. 30010, Taiwan*)

Magneto-optics of two-dimensional arrays of embedded semiconductor quantum dot molecules

Mo-eP9 **A. Fujimoto[1], M. Kitamura[2], H. Kobori[2], A. Yamasaki[2], A. Sugimura[2], A. Ando[3], H. Kawanaka[3], T. Shimizu[3]** (*[1]Nanomaterials Microdevices Research Center, Osaka Institute of Technology, 5-16-1 Ohmiya, Asahi-ward, Osaka,Osaka 535-8585, Japan, [2]Department of Physics, Faculty of Science and Engineering, Konan University, 8-9-1 Okamoto, Higashi Nada-ku, Kobe, Hyogo 658-8501, Japan, [3]Nanotechnology Research Institute, Advanced Industrial Science and Technology, AIST Tsukuba Central, Tsukuba, Ibaraki 305-8568, Japan*)

Enhancement of negative magnetoresistance due to weak localization in In_2O_3 thin films on Si substrate

Mo-eP10 **V. M. Fomin, P. Kratzer** (*Fachbereich Physik and Center for Nanointegration (CeNiDE), Universität Duisburg-Essen, Duisburg D-47057, Germany*)

Thermoelectric transport in periodic 1D stacks of InAs/GaAs quantum dots

Mo-eP11 **A. Nafidi** (*GCMP, Ibn Zohr University, Faculty of Sciences, Department of Physics, BP 8106 Hay Dakhla, Agadir 80000, Morocco*)

Band structure and magneto-transport properties in narrow gap, two-dimensional and modulated nano-medium-infrared detector

Mo-eP12 **M. Taut, P. Machon, H. Eschrig** (*Leibniz Institute for Solid State and Materials Research, IFW Dresden, POB 270116, 01171 Dresden, Germany*)

Violation of non-interacting v-representability of the exact solutions of the Schroedinger equation for a parabolic two-electron quantum dot in a homogeneous magnetic field

Mo-eP13 **Yu. B. Vasilyev, B. Ya. Meltser, S. V. Ivanov, P. S. Kop'ev** (*Ioffe Physical Technical Institute, St.-Petersburg, Russia*)

Spatially indirect magnetoexcitons in type-II quantum wells

Mo-eP14 **M. Nishimori[1], S. Sasaki[1], S. Watanabe[2], Y. Hirayama[3,4]** ([1]*Graduate School of Science and Technology, Niigata University, Niigata, Japan,* [2]*Centre for Advancement of Higher Education, Tohoku University, Sendai, Japan,* [3]*Graduate School of Science, Department of Physics, Tohoku University, Sendai, Japan,* [4]*4ERATO Nuclear Spin Project, Sendai, Japan*)

Strains in heterostructures detected by standard NMR

Mo-eP15 **S. Wiedmann[1], N.C. Mamani[2], G.M. Gusev[2], O.E. Raichev[3], A.K. Bakarov[2], J.C. Portal[1]** ([1]*LNCMI-CNRS / INSA, 25 rue des Martyrs, BP 166, Grenoble cedex 9 38042, France,* [2]*Instituto de Fsica da Universidade de So Paulo, So Paulo, SP, Brazil,* [3]*Institute of Semiconductor Physics, NAS of Ukraine, Kiev, Ukraine,* [4]*Institut Universitaire de France, 103, bd Saint-Michel 75005 Paris, France*)

Integer and fractional microwave induced resistance oscillations in a 2D system with moderate mobility

Mo-eP16 **Ethirajul. Senthamara. Kannan[1], G. H. Kim[1], I. Farrer[2], D. A. Ritchie[2]** ([1]*Sungkyunkwan Advanced Institute of Nanotechnology, Sungkyunkwan University, II Research complex building, 83206 Sungkyunkwan University, Suwon, Gyeonggi-do 440746, South Korea,* [2]*Cavendish Laboratory, University of Cambridge, Cavendish Laboratory, University of Cambridge, J. J. Thomson Avenue, Cambridge CB3 0HE, UK.*)

Crossover from weak localization to anti-localization in double quantum well system

Mo-eP17 **A. Ganczarczyk[1], S. Voßen[1], M. Geller[1], A. Lorke[1], K. Piegdon[1,2], D. Reuter[1,3], A. D. Wieck[1,3]** ([1]*Experimental Physics and CeNIDE, University Duisburg-Essen, Lotharstr. 1, 47048 Duisburg, Germany,* [2]*Department of Physics, University of Paderborn, Warburger Str. 100, 33098 Paderborn, Germany,* [3]*Solid State Physics, Ruhr-Universität Bochum, Universitätsstraße 150, 44801 Bochum, Germany*)

A voltage-tunable self-switching in-plane diode in a 2D-electron system

Mo-eP18 **L. C. Li[1], Y. T. Sung[2], C. W. Chang[3], Y. W. Suen[2,3,4], K. Y. Chen[5], C. T. Liang[5], Y. F. Chen[5], B. C. Lee[6], C. P. Lee[1,6]** ([1]*Center for Nanoscience and Technology, National Chiao Tung University, Hsinchu, Taiwan, R.O.C.,* [2]*National Nano Device Laboratories, Hsinchu, Taiwan, R.O.C.,* [3]*Department of Physics, National Chung Hsing University, Taichung, Taiwan, R.O.C.,* [4]*Institute of Nanoscience, National Chung Hsing University, Taichung, Taiwan, R.O.C.,* [5]*Department of Physics, National Taiwan University, Taipei, Taiwan, R.O.C.,* [6]*Department of Electronics Engineering, National Chiao Tung University, Hsinchu, Taiwan, R.O.C.*)

Microwave-induced DC currents in mesoscopic structures

Mo-eP19 **T. . Martin[1], S. J. MacLeod[1], K. Chan[1], A. R. Hamilton[1], A. See[1], A. P. Micolich[1], M. Aagesen[2], P. E. Lindelof[2]** ([1]*School of Physics, University of New South Wales, Sydney, NSW 2051, Australia,* [2]*Nano-science center, University of Copenhagen, Universitetsparken 5, DK-2100 Copenhagen, Denmark*)

Re-examination of the single-particle relaxation lifetime for homogeneous background impurities in the two-dimensional electron gas

Mo-eP21 **N. P. Stepina, E.S. Koptev, A.V. Dvurechenskii, A.I. Nikiforov** (*Institute of Semiconductor Physics, 13 Lavrenteva, Novosibirsk 630090, Russia*)

Two-parameter scaling in 2D transport though a Ge/Si quantum dot array

Mo-eP22 **C. R. Proetto[1], S. Rigamonti[2]** ([1]*Institut fur Theoretische Physik, Freie Universitat Berlin, Arnimallee 14, Berlin D-14195, Germany,* [2]*Donostia International Physics Center (DIPC), E-20018 San Sebastian, Spain*)

What can we learn on the "universal" exchange-correlation energy of Density Functional Theory from the subband electronic structure of semiconductor quantum wells?

Mo-eP23 **J. Wrobel[1], P. Zagrajek[1], M. Czapkiewicz[1], M. Bek[2], K. Fronc[1], R. Hey[3], K. H. Ploog[3], B. Bulka[2], T. Dietl[1,4]** ([1]*Instytut Fizyki PAN, Warszawa, Poland,* [2]*Instytut Fizyki Molekularnej PAN, Poznan, Poland,* [3]*Paul Drude Institute, Berlin, Germany,* [4]*Instytut Fizyki Teoretycznej UW, Warszawa, Poland*)

Quantum effects in linear and non-linear transport of three-terminal ballistic junctions

Mo-eP24 **M. Yamaguchi[1], S. Nomura[1,2], H. Tamura[1], T. Akazaki[1]** ([1]*NTT Basic Research Laboratories, 3-1 Morinosato-Wakamiya, Atsugi, Kanagawa 243-0198, Japan,* [2]*University of Tsukuba, 1-1-1 Tennodai, Tsukuba, 305-8571, Japan*)

Photoluminescence spectra of gated undoped quantum well with lateral potential modulation in low electron density

Mo-eP25 **M. S. Fairbanks[1], T. P. Martin[2], B. C. Scannell[1], C. A. Marlow[1], H. Linke[1,3], R. P. Taylor[1]** ([1]*Department of Physics, University of Oregon, 1371 E 13th Ave. Eugene, Oregon 97403, USA,* [2]*School of Physics, University of New South Wales, Sydney, Australia 2052,* [3]*Division of Solid State Physics, Lund University, Box 118, S-221 00, Sweden*)

Measuring hybridization in GaInAs/InP electron billiard arrays

Mo-eP26 **T. Kubo[1], Y. Tokura[1,2], T. Hatano[1], S. Amaha[1], S. Teraoka[1], S. Tarucha[1,3]** ([1]*Quantum Spin Information Project, ICORP, JST, Morinosato Wakamiya, Atsugi-shi, Kanagawa 243-0198, Japan,* [2]*NTT Basic Researche Laboratories, NTT Corporation, Morinosato Wakamiya, Atsugi-shi, Kanagawa 243-0198, Japan,* [3]*Department of Applied Physics, University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113-8656, Japan*)

Quantum interference effects in a laterally coupled triple quantum dot containing a quantum dot charge sensor

Mo-eP27 **Y. Imanaka[1], K. Takehana[1], T. Takamasu[1], G. Kido[1], G. Karczewski[2], T. Wojtowicz[2], J. Kossut[2]** ([1]*National Institute for Materials Science, 3-13, Sakura, Tsukuba, Ibaraki 3050003, Japan,* [2]*Institute of Physics, Polish Academy of Sciences, Al. Lotnikw 32/46, 02-668 Warsaw, Poland*)

Optical detected magnetoplasma effects in CdTe dense two dimensional electron systems

Mo-eP28 **M. Abbarchi[1], F. Intonti[1], S. Vignolini[1], A. Vinattieri[1], L. Balet[2], L.H.Li[2], M. Francardi[3], A. Fiore[4], M. Gurioli[1]** (*[1]Physics department University of Firenze, Via Sansone 1 50019 , ITALY, [2]EPFL, Institute of Photonics and Quantum Electronics, Station 3, CH-1015 Lausanne, Switzerland, [3]Institute of Photonics and Nanotechnology, CNR, via del Cineto Romano 42, 00156 Roma, Italy, [4]COBRA Research Institute, Eindhoven University of Technology, 5600 MB Eindhoven, The Netherlands*)

Control of the quantum dots angular emission pattern in photonic crystal microcavities

Mo-eP29 **D. Kaewket[1], S. Sanorpim[1], S. Tungasmita[1], R. Katayama[2], K. Onabe[2]** (*[1]Department of Physics, Faculty of Science, Chulalongkorn University, Phayatai Rd., Patumwan, Bangkok 10900, Thailand, [2]Department of Advanced Materials Science, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba, 277-8561 Japan*)

Band alignment of lattice-matched InGaPN/GaAs and GaAs/InGaPN quantum wells grown by MOVPE

Mo-eP30 **G. Tsuchiya[1], K. Sawano[2], Y. Shiraki[2], K. M. Itoh[1]** (*[1]School of Fundamental Science and Technology, Keio University, 3-14-1 Hiyoshi, Kouhoku-Ku, Yokohama 2238522, Japan, [2]Advanced Research Laboratories, Musashi Institute of Technology, 8-15-1 Todoroki, Setagaya-ku, Tokyo 1580082, Japan*)

Identification of scattering mechanisms limiting the mobility of two-dimensional electron gas in Si/SiGe heterostructures

Mo-eP31 **Y. Lin[1], P.-J. Wu[1], J. C. Chen[1], K. T. Lin[1], D.-S. Luo[1], T. Ueda[2], S. Komiyama[2]** (*[1]Department of Physics, National Tsing Hua University, No. 101, Sec. 2, Kuang-Fu Rd, Hsinchu 30013, Taiwan, [2]Department of Basic Science, University of Tokyo, 3-8-1 Komaba, Meguro-ku, Tokyo, 153-890, Japan*)

Channel Interference on Aharonov-Bohm Effect in a Quasi One-Dimensional Ring

Mo-eP32 **K.M. Liu[1], H.Y. Lin[1], V. Umansky[2], S.Y. Hsu[1]** (*[1]Deptartment of Electrophysics, National Chiao Tung University, 1001 Ta Hsueh Road, Hsinchu 300, Taiwan, [2]Braun center for Submicron Research, Weizmann Institute of Science, Rehovot, 76100, Israel*)

Density influenced electric transport of double quantum point contacts in series

Mo-eP33 **G. M. Gusev[1], Z. D. Kvon[2]** (*[1]Instituto de F.sica da Universidade de S ao Paulo,, S ao Paulo, SP, Brazil, , [2]Institute of Semiconductor Physics,*)

Magnetic field asymmetry of nonlinear transport in a small ring

Mo-eP34 **S. Wiedmann[1], N.C. Mamani[2], G.M. Gusev[2], A.K. Bakarov[2], J.C. Portal[1,3]** (*[1]LNCMI-CNRS / INSA, 25 rue des Martyrs, BP 166, Grenoble cedex 9 38042, France, [2]Instituto de Fsica da Universidade de So Paulo, So Paulo, SP, Brazil, [3]Institut Universitaire de France, 103, bd Saint-Michel 75005 Paris*)

Magneto-intersubband oscillations in triple quantum wells

Mo-eP35 **J. L. Movilla, A. Ballester, J. Planelles** (*Departament de Quimica Fisica i Analitica, Universitat Jaume I, Avd. de Vicent Sos Baynat s/n E-12071, Spain*)

Dielectric mismatch effect on coupled donor states in a quantum dot

Mo-eP36 **D. Lin, C. Hun. , C. Lu, J. Wu** (*Department of Electronic Engineering, National Changhua University of Education, 1., Jin De Road, Paisha Village, Changhua 500, Taiwan*)

Comparison of two-dimensional electron gas of etched and nonetched InAlAs/InGaAs/InAlAs metamorphic high electron mobility transistor structures

Mo-eP37 **A.L. Vartanian, A.L. Asatryan, K.A. Vardanyan, A.A. Kirakosyan** (*Department of Solid State Physics, Yerevan State University, 1 A. Manoogian St., Yerevan 0025, Armenia*)

Quantum capture of electrons and intradot relaxation by means of Auger processes in quantum dots

Mo-eP38 **Zeng-R. Zhao, X. X. Liang** (*Department of Physics, Inner Mongolia University, 235 West University Road, Hohhot 010021, China*)

Polaronic effect on an exciton in a cylindrical quantum wire

Mo-eP39 **Han. Y. Ramirez[1], Chia-Hsie. Lin[1], Wen-Tin. You[1], Shan-Y. Huang[1], Wen-Ha. Chang[1], Sheng-D. Lin[2], Shun-Je. Cheng[1]** ([1]*Department of Electrophysics, National Chiao Tung University, 1001 Ta-Hsueh Road, Hsinchu 300, Taiwan,* [2]*Department of Electronic Engineering, National Chiao Tung University, 1001 Ta-Hsueh Road, Hsinchu, 300 Taiwan*)

Electron-hole symmetry breaking in optical fine structures of single self-assembled quantum dots

Mo-eP40 **T. Moldaschl[1], T. Müller[1], W. Parz[1], S. Golka[2], G. Strasser[2], K. Unterrainer[1,2]** ([1]*Institute of Photonics, Vienna University of Technology, Gusshausstrasse 27-29/387 1040 Vienna, Austria,* [2]*Center for Micro- and Nanostructures, Vienna University of Technology, Floragasse 7, 1040 Vienna, Austria*)

Fine structure of excitons in InAs quantum dots at low magnetic fields

Mo-eP42 **J. Inarrea[1,2], G. Platero[2]** ([1]*Department of Physics. University Carlos III, Avenida de la Universidad. Leganes. Madrid 28760, Spain,* [2]*Instituto de Ciencia de Materiales., Cantoblanco. Madrid*)

Role of an in-plane field in 2D magnetotransport assisted by microwaves

Mo-eP44 **Manvi. S. Kushwaha** (*Institute of Physics, University of Puebla, Apdo. Post. J-45, Puebla 72570, Mexico 72570, Mexico*)

How a magnetized quantum wire can act as an active laser medium

Mo-eP45 **M. P. Telenkov, Yu. A. Mityagin** (*P.N. Lebedev Physical Institute, 119991 Leninsky prosp., 53, Moscow, Russia*)

Effect of strong tilted magnetic field on the sequential resonant tunneling in long period GaAs/AlGaAs superlattices

Mo-eP46 **M.B. Santos[1], M. Edirisooriya[1], T.D. Mishima[1], C.K. Gaspe[1], J. Coker[1], R.E. Doezema[1], X. Pan[2], G.D. Sanders[2], C.J. Stanton[2], L.C. Tung[3], Y-J. Wang[3]** ([1]*Department of Physics and Astronomy, University of Oklahoma, 440 West Brooks, Norman OK 73019, USA,* [2]*Department of Physics, University of Florida, P.O. Box 118440, Gainesville, FL 32611-8440, USA,* [3]*National High Magnetic Field Laboratory, Florida State University, 1800 E. Paul Dirac Drive, Tallahassee, FL 32310 - 3706, USA*)

Cyclotron Resonance in 2D Hole Systems in InSb Quantum Wells

Mo-eP47 **S. S. Buchholz[1], S. F. Fischer[1], U. Kunze[1], D. Reuter[2], A. D. Wieck[2]** ([1]*Werkstoffe und Nanoelektronik, Ruhr-Universität Bochum, Universitätstr. 150, 44780 Bochum, Germany,* [2]*Angewandte Festkörperphysik, Ruhr-Universität Bochum, Universitätstr. 150, 44780 Bochum, Germany*)

Aharonov-Bohm phase shift in a multi-terminal asymmetric quantum ring

Mo-eP48 **H. Shima[1], H. Yoshioka[2], J. Onoe[3]** ([1]*Department of Applied Physics, Graduate School of Engineering, Hokkaido University, N13-W8, Kita-ku, Sapporo, Hokkaido 060-8628, Japan,* [2]*Department of Physics, Nara Women's University, Nara 630-8506, Japan,* [3]*Research Laboratory for Nuclear Reactors and Department of Nuclear Engineering, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro, Tokyo 152-8550, Japan*)

Tomonaga-Luttinger exponent of peanut-shaped hollow nanocylinders

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Anomalous temperature dependence of electron tunneling

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Revival of electron coherence in a Luttinger liquid of finite length

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Multiorbital Kondo effect in quantum dots coupled to ferromagnetic leads

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Andreev tunneling through a quantum dot at finite bias

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Distribution and Anisotropy of Electron g-factor in Quantum Dots

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Interaction between coupled quantum dots and a biased quantum point contact

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Electron localization in few-electron concentric quantum rings

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Electrostatically-defined quantum dots in silicon

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Terahertz Photo-Response of Quantum Point Contacts

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The quantum Hall effect beyond linear response

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Spatially modulated magnetic fields induced modification of magnetic bands of monolayer zigzag graphene ribbon

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The current direction induced rectification effect on the IQHE

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Collapse of the Conductance Quantization by the High-frequency Shot Noise in Coupled Quantum Wires

Mo-eP65 **Tsai-Y. Huang[1], C.-T. Liang[1], Gil-H. Kim[2], C. F. Huang[3], C. P. Huang[1], D. A. Ritchie[4]** ([1]*Department of Physics, National Taiwan University, Taipei 106, Taiwan, ,* [2]*School of Information and Communication Engineering and Sungkyunkwan Advanced Institute of Nanotechnology, Sungkyunkwan University, Suwon 440-746, Republic of Korea, ,* [3]*National Measurement Laboratory, Center for Measurement Standards, Industrial Technology Research Institute, Hsinchu 300, Taiwan, ,* [4]*Cavendish Laboratory, Madingley Road, Cambridge CB3 OHE, United Kingdom,*)

Probing two-dimensional metallic-like and localization effects at low magnetic fields

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Circular polarization reversal of split photoluminescence peaks at ν of slightly less than 1

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Optical studies of spin phase transition in the vicinity of ν=2/3 fractional quantum Hall regime

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Sensitive detection of the spin polarization in a quantum Hall regime by a Kerr rotation measurement

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Optical Hall conductivity in 2DEG and graphene QHE systems

Mo-eP70 **N. Kumada, K. Muraki** (*NTT Basic Research Laboratories, 3-1 Morinosato Wakamiya, Atsugi 243-0198, Japan*)

Spin-pseudospin mixed skyrmion in bilayer ν=1 quantum Hall systems with large tunnel coupling

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Lifetime of dissipation-less state of quantum Hall electron systems in the bistable regime

Mo-eP72 **S. P. Koduvayur[1], L.P.Rokhinson[1], G.A.Csathy[1], S.Y.Khlebnikov[1], M.J.Manfra[1,2], L.N.Pfeiffer[2], K.W.West[2]** ([1]*Department of Physics, Purdue University , 525 Northwestern Avenue, West Lafayette 47907, USA,* [2]*Bell Laboratories, Lucent Technologies, Murray Hill, NJ, 07974,USA*)

Effect of strain on nematic phases in two dimensional hole gases

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Hall resistance overshoot in 2D electron systems in Si/SiGe

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Optical absorption to probe the quantum Hall ferromagnet at ν= 1

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Investigation of domain pinning field in GaMnAs using angular dependence of planar Hall effect

Mo-eP76 **T. Matsuda, K. Konishi, K. Yoh** (*Graduate School of Information Science and Technology, Hokkaido University, N13, W8, Kitaku, Sapporo, Hokkaido 060-8628, Japan*)

Possible Sign Reversal of Rashba coefficient in InAs-based Heterostructures

Mo-eP77 **D. A. Vasyukov[1], A. S. Plaut[1], A. H. MacDonald[2], M. Henini[3]** ([1]*Exeter University , School of Physics, Exeter EX4 4QL, England,* [2]*The University of Texas at Austin, Department of Physics, Austin Texas 78712, USA,* [3]*University of Nottingham, School of Physics and Astronomy and Nottingham Nanotechnology and Nanoscience Centre, Nottingham NG7 2RD, UK*)

Measurement of a large hole g-factor in two-dimensional hole gases

Mo-eP78 **P. Vasilopoulos, P. M. Krstaji'c** (*Department of Physics, Concordia University, 7141 Sherbrooke Ouest, Montral, Qubec H4B 1R6, Canada*)

Spin-dependent transport through waveguides with spatially modulated strengths of the Rashba and Dresselhaus spin-orbit interaction terms

Mo-eP79 **R.Z.Vitlina, L.I.Magarill, A. V. Chaplik** (*Institute of Semiconductor PhysicsBranch, Russian Academy of Sciences, Novosibirsk, Russia, 13, prospekt Lavrent'eva, Novosibirsk, 630090, Russia*)

2D magnetoplasmons in systems with spin-orbit interaction (SOI)

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Excitation of electric-field-driven spin remagnetization waves on a cylindrical surface with spin-orbit interaction

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Spin interference effects in InGaAs/InAlAs rectangular loop arrays

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Molecular beam epitaxy and magnetoresistance in Fe_4N/MgO/Fe_4N magnetic tunnel junction

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Spin-orbit interaction induced directional suppression of plasmon propagation

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Single electron spin resonance in a g-factor controlled semiconductor quantum dot

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Spin-Orbit Interaction and Negative Magnetoresistance for Localized Electrons in InSb Quantum Wells

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Electrically detected spin resonance of ‘snake’ state oscillators

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Low field magnetization dynamics in dilute (Cd,Mn)Te

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Interplay of intrinsic and extrinsic mechanisms to the spin Hall effect in a two-dimensional electron gas

Mo-eP89 **S. H. Lee, C.W. Chiu, M.F. Lin** (*Department of Physics, National Cheng Kung University, No.1, Ta-Hsueh Road, Tainan City 701, Taiwan (R.O.C.)*)

Deformation effects on electronic structures of bilayer graphenes

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Low temperature magneto-resistance of thin multi-walled carbon nano-tube

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Transport properties of normal metal - graphene nanoribbon - normal metal junctions

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Doping of Si into Aligned Carbon Nanotube Films on SiC

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Doping of graphene by toluene

Mo-eP95 **S. Park, H.-S. Sim** (*Departmet of Physics, KAIST, 335 Gwahangno, Yuseong-gu, Daejeon 305-701, Republic of Korea*)

Phase jump of the reflection amplitude in bilayer graphene with potential step

Mo-eP96 **Kuang-Yua. Hsu, Chuan-P. Liu** (*Department of Materials Science and Engineering, National Cheng Kung University, No.1,Ta-Hsueh Road,Tainan,Taiwan,ROC.*)

Molecular beam epitaxy growth of wurtzite GaN nanoislands and nanocolumns

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Anomalous temperature dependence of critical supercurrent in multilayer graphene coupled to superconductors

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Low-temperature electrical-transport properties of single indium tin oxide nanowires

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Low frequency resistance noise in graphene based field effect devices

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Atomic structures of the interface between homogeneous graphene and 6H-SiC (0001)

Mo-eP101 **P.S. Park[1], S.C. Kim[1], S. Yang[1,2], A.H. MacDonald[3]** ([1]*Department of Physics, Korea university, Seoul , Korea,* [2]*Korea Institute for Advanced Study, Seoul, Korea,* [3]*Department of Physics, University of Texas, Austin, TX 78703, USA*)

Interband Conductivity of Neutral Graphene Sheets

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Influence of the growth conditions of epitaxial graphene on the film topography and the electron transport properties

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Localized magnetoplasmons in graphene

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Theory for interlayer magnetoresistance in layered Dirac fermion systems: Application to α-(BEDT-TTF)$_2$I$_3$

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Transition of graphene under one-dimensional electric potentials to semimetallic state

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Resonance scattering by strong and short-range scatterers in graphene

Mo-eP107 **P. Liu[1,2,3], GW. She[2], WS. Shi[2], DM. Chen[1]** ([1]*Institute of Physics, Chinese Academy of Sciences, Beijing, China,* [2]*Technical Institute of Physics and Chemistry, Chinese Academy of Science, Beijing, China,* [3]*Institute Neel, CNRS/UJF, Grenoble, France*)

Polarized memory effect observed in ZnO nanotube point contact system

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Scattering processes in a 2D semimetal

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Electrical conduction mechanisms in natively doped ZnO nanowires

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Magnetoresistance due to potential fluctuation in monolayer graphene at minimum conductivity point

Mo-eP111 **Ysha. Avishai[1,2]** ([1]*Department of Physics, Ben Gurion University, Beer Sheva, Israel,* [2]*Department of Physics, Hong Kong University of Science and Technology, Clear Water Bay, Kowloon, Hong Kong*)

Electron on a Sphere: 2D or not 2D?

Mo-eP112 **M. F. Craciun[1], S. Russo[1,2], M. Yamamoto[1], A. F. Morpurgo[1,3], S. Tarucha[1]** ([1]*Department of Applied Physics, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku,Tokyo 113-8656, Japan,* [2]*Kavli Institute of Nanoscience, Delft University of Technology, Lorentzweg 1, 2628 CJ, Delft, The Netherlands,* [3]*Department of Condensed Matter Physics, University of Geneva, quai Ernest-Ansermet 24, CH-1211 Geneva 4, Switzerland,* [4]*Quantum Spin Information Project, ICORP, Japan Science and Technology Agency, Atsugi-shi, 243-0198, Japan*)

Contact resistance in graphene-based devices

Mo-eP113 **M. Hayashi[1], H. Yoshioka[1], A. Kanda[1]** ([1]*Faculty of Education and Human Studies, Akita University, 1-1 Tegatagakuen-machi, Akita 0108502, Japan,* [2]*Department of Physics, Nara Women 寰 冗 University, Nara 630-8506, Japan,* [3]*Institute of Physics, University of Tsukuba, Tsukuba 305-8571, Japan*)

Superconducting proximity effect through single-layer and multilayer graphene films

Mo-eP114 **Y. Tomio, H. Suzuura** (*Division of Applied Physics, Graduate School of Engineering, Hokkaido University, Kita 13 Nishi 8, Kita-ku, Sapporo 0608628, Japan*)
Impurity-induced valley mixing of excitons in semiconducting carbon nanotubes

Mo-eP115 **K. Takai, K. Takai, Y. Nishimura, T. Enoki** (*Department of Chemistry, Tokyo Institute of Technology, 2-12-1-W4-1, Ookayama, Meguro, Tokyo, JAPAN*)
Electronic properties of Nanographene

Mo-eP116 **A. Satou[1], A. Satou[1], F. T. Vasko[2], T. Otsuji[3], V. Ya. Aleshkin[4], A. A. Dubinov[4]** ([1]*Computational Nanoelectronics Laboratory, University of Aizu, Aizu-Wakamatsu 965-8580, Japan,* [2]*Institute of Semiconductor Physics, NAS of Ukraine, Kiev 03028, Ukraine,* [3]*Research Institute of Electrical Communication, Tohoku University, Sendai 980-8577, Japan,* [4]*Institute for Physics of Microstructures, RAS, 603950 Nizhny Novgorod, Russia*)
Terahertz/far-infrared lasing by utilization of population inversion in graphene under optical pumping

Mo-eP117 **S. Joo[1], T. Kim[1], S. Shin[2], J. Song[2], K. Shin[2], K. Rhie[1], J. Hong[1]** ([1]*Department of Physics, Korea University, Chochiwon, Chungnam , Korea,* [2]*Korea Institute of the Science and Technology, Seoul, Korea*)
Enhancement of negative differential resistance effect by magnetic field in InSb tunneling diode

Mo-eP118 **Kuan-Tin. Lin[1], Yipin. Lin[1], C. C. Chi[1], J. C. Chen[1], T. Ueda[2], S. Komiyama[2]** ([1]*Department of Physics, National Tsing Hua University, Hsinchu, Taiwan,* [2]*Department of Basic Science, University of Tokyo, Komaba, Tokyo, Japan*)
Temperature and current-dependent dephasing in an Aharonov-Bohm ring

Mo-eP119 **E. de. Valle[1], S. Zippilli[2], A. Gonzalez-Tudela[1], F.P. Laussy[3], G. Morigi[1], C. Tejedor[1]** ([1]*Dept. Fisica Teorica Materia Condensada, Universidad Autonoma de Madrid, Cantoblanco, Madrid 28049, Spain,* [2]*Dept. Fisica, Universidad Autonoma de Barcelona, Bellaterra, Barcelona 08193, Spain ,* [3]*School of Physics and Astronomy, University of Southampton, , Southampton, UK*)
Two photon laser emission from a quantum dot in a cavity

Mo-eP120 **J. D. Mason[1,3], L. Gaudreau[2,4], S. A. Studenikin[2], A. Kam[2], A. S. Sachrajda[2], J. B. Kycia[1,3]** ([1]*Department of Physics and Astronomy, University of Waterloo, Waterloo, Ontario, Canada N2L3G1,* [2]*Institute for Microstructural Sciences, National Research Council, Ottawa, Ontario, Canada K1A0R6,* [3]*Institute for Quantum Computing, University of Waterloo, Waterloo, Ontario, Canada N2L3G1,* [4]*Rgroupement Qubcois sur les Matriaux de Pointe, Universit de Sherbrooke, Sherbrooke, Qubec, Canada J1K2R1*)
A high speed radio-frequency quantum point contact charge detector for time resolved readout applications of spin qubits

Mo-eP121 **Emilian. Cancellieri[1,2], Filipp. Troiani[1], Guid. Goldoni[3]** ([1]*S3 CNR-INFM, Modena, Italy, Via Campi 213/A,* [2]*Departamento de Fisica Teorica de la Materia Condensada, Universidad Autonoma de Madrid, C/ Francisco Toms y Valiente, 7 28049, Spain,* [3]*Dipartimento di Fisica, Università di Modena e Reggio Emilia, Via Campi 213/A*)
Towards the generation of indistinguishable photons from non-identical artificial molecule

Mo-eP122 **P. K. Pathak[1], Youngnae Lee[2], Kicheon Kang[2]** (*[1]Depatment of Physics, Queen's University, Kingston, ON K7L 3N6, Canada, [2]Department of Physics, Chonnam National University, Gwangju 500-757, Republic of Korea*)

High sensitivity charge detection and dephasing in edge state interferometer

Mo-eP123 **C.-W. Sohn[1], T.-U. Rim[1], Y.-H. Jeong[1,2]** (*[1]Department of Electronic and Electrical Engineering, Pohang University of Science and Technology, San 31, Hyoja-Dong, Nam-Gu, Pohang, Gyeongbuk 790-784, Korea, [2]National Center for Nanomaterials Technology, Pohang, Gyeongbuk*)

Two-dimensional device model for staggered-type organic thin-film transistors

Mo-eP124 **A. Kumagai, T. Osada, T. Konoike, K. Uchida** (*Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba 277-8581, Japan*)

High-Electric-Field Angle-Dependent Magnetotransport and Electronic Structure in Quasi-Two-Dimensional Conductors

Mo-eP125 **R. Masutomi[1], A. Sekine[1], K. Sasaki[1], K. Sawano[2], Y. Shiraki[2], T. Okamoto[1]** (*[1]Department of Physics, University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 1130033, Japan, [2]Research Center for Silicon Nano-Science, Musashi Institute of Technology, 8-15-1 Todoroki, Setagaya-ku, Tokyo, Japan*)

Cyclotron resonance of two dimensional electrons in a Si quantum well

Mo-eP126 **R. Shindou[1], S. Murakami[2]** (*[1]Condensed Matter Theory Laboratory, RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan, [2]Department of Physics, Tokyo Institute of Technology, 2-12-1 Ookayama Meguro-ku, Tokyo 152-8551 Japan*)

Non-magnetic disorder effect in Z_2 quantum spin Hall systems

Mo-eP128 **L. J. T. Taskinen[1], R. P. Starrett[1], T. P. Martin[1], A. P. Micolich[1], A. R. Hamilton[1], M. Y. Simmons[1], D. A. Ritchie[2], M. Pepper[2]** (*[1]School of Physics, University of New South Wales, Sydney NSW 2052, Australia, [2]Cavendish Laboratory, University of Cambridge, Cambridge CB3 0HE, United Kingdom*)

Radio-frequency reflectometry - A fast and sensitive measurement method for 2-Dimensional systems

Mo-eP129 **C. Altimiras, H. l. Sueur, A. Cavanna, U. Gennser, D. Mailly, F. Pierre** (*CNRS, Laboratoire de Photonique et de Nanostructures (LPN) - Phynano Team, route de Nozay, 91460 Marcoussis, France*)

Non-equilibrium edge channel spectroscopy in the integer quantum Hall regime

Mo-eP130 **N. Aoki, K. Matsusaki, T. Yahagi, K. Sudou, Y. Ochiai** (*Graduate School of Advanced Integration Science, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522, Japan*)

Scanning gate characterization of organic field effect transistor

Mo-eP131 **L. Gaudreau[1,2], S. Studenikin[1], G. Granger[1], J. Kycia[3], P. Mason[3], A. Kam[1], C.Y. Hsieh[1], R. Cheriton[1], M. Korkusinski[1], P.Hawrylak[1], A. Sachrajda[1]** (*[1] Institute for Microstructural Sciences, National Research Council, 1200 Montreal Rd. Bldg. M-50, Ottawa, Ontario K1A 0R6, Canada, [2]Physics Department, University of Sherbrooke, Quebec, Canada, J1K 2R1, , [3]Department of Physics and Astronomy, University of Waterloo, Waterloo, Canada, N2L 3G1, *)

Time resolved control of electron tunnelling times and single-shot spin readout in a quantum dot

Mo-eP132 **L. Smrcka, N. A. Goncharuk** (*Institute of Physics, ASCR, v.v.i., Cukrovarnicka 10, Prague 6, 162 53 , Czech Republic*)

Aperiodic magneto-oscillations in graphite

Tuesday July 21st

Session E2 (Main Hall) 9:00 – 10:30 Spin related phenomena

E2a 9:00 – 9:30 **Laurens W. Molenkamp** (Invited) (*Physikalisches Institut (EP3) der Universität Würzburg, Am Hubland, 97074 Würzburg, Germany*)

Spin Hall effects in HgTe Quantum Well Structures

E2b 9:30 – 9:45 **H. Saarikoski**[1,2,3]**, G. E. W. Bauer**[1] ([1]*Kavli Institute of Nanoscience, Delft University of Technology, 2628-CJ Delft, The Netherlands,* [2]*Mathematical Physics, Lund Institute of Technology, SE-22100 Lund, Sweden,* [3] *Helsinki University of Technology, P.O. Box 4100, FI-02015 HUT, Finland*)

Spin accumulation with spin-orbit interaction

E2c 9:45 – 10:00 **D. A. Vasyukov**[1]**, A. S. Plaut**[1]**, A. H. MacDonald**[2]**, M. Henini**[3]**, L. N. Pfeiffer**[4]**, K. W. West**[4] ([1]*Exeter University , School of Physics, Exeter EX4 4QL, UK,* [2]*The University of Texas at Austin, Department of Physics, Austin Texas 78712, USA,* [3]*University of Nottingham, School of Physics and Astronomy and Nottingham Nanotechnology and Nanoscience Centre, Nottingham NG7 2RD, UK,* [4]*Bell Laboratories, Alcatel-Lucent, Murray Hill, New Jersey, 07974, USA*)

Intrinsic photoinduced anomalous Hall effect

E2d 10:00 – 10:30 **D. Chiba**[1,2,3]**, M. Sawicki**[2,4]**, Y. Nishitani**[2]**, Y. Nakatani**[5]**, T. Ono**[3]**, F. Matsukura**[2,1]**, H. Ohno**[2,1] (Invited) ([1]*Semiconductor Spintronics Project, ERATO, Japan Science and Technology Agency, Japan,* [2]*Laboratory for Nanoelectronics and Spintronics, RIEC, Tohoku University, Japan,* [3]*Institute for Chemical Research, Kyoto University, Japan,* [4]*Institute of Physics, Polish Academy of Sciences, Poland,* [5]*University of Electro-communications, Japan*)

Electric-field manipulation of magnetization vector in (Ga,Mn)As

10:30 – 11:00 **Coffee Break**

Session E3 (Main Hall) 11:00 – 12:30 Optical phenomena

E3a 10:30 – 11:15 **Israel Bar-Joseph** (Invited) (*Weizmann Institute of Science, Rehovot 76100, Israel*)

The exciton Mott transition

E3b 11:30 – 11:45 **M. D. Fraser**[1,2,3], **M. Kuwata-Gonokami**[2], **S. Höfling**[5], **A. Forchel**[5], **Y. Yamamoto**[3,4] (*[1]Institute for Nano Quantum Information Electronics, University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo 153-8505, Japan, [2]Department of Applied Physics, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan, [3]National Institute of Informatics, 2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo 101-8430, Japan, [4]Edward L. Ginzton Laboratory, Stanford University, Stanford, California 94305-4085, USA, [5]Technische Physik, Universität Würzburg, Am Hubland, D-97074 Würzburg, Germany*)

Rotation of a two-dimensional exciton-polariton condensate

E3c 11:45 – 12:00 **A. Amo**[1], **D. Sanvitto**[1], **F.P. Laussy**[1], **D. Ballarini**[1], **E. de. Valle**[1], **M.D. Martin**[1], **A. Lematre**[2], **J. Bloch**[2], **D.N. Krizhanovskii**[3], **M. Skolnick**[3], **C. Tejedor**[1], **L. Vina**[1] (*[1]Dept. Fisica de Materiales. Universidad Autonoma de Madrid, C/. Francisco Tomas y Valiente 7 E28049, Spain, [2]LPN/CNRS, Route de Nozay, 91460, Marcoussis, France, [3]Dep. Physics and Astronomy, Univ. of Sheffield, S3 7RH, Sheffield, U.K.*)

Quantum fluid dynamics of a polariton condensate in a semiconductor microcavity

E3d 12:00 – 12:15 **D. . Krizhanovskii**[1], **K.Lagoudakis**[2], **A.P.D.Love**[1], **B.Pietka**[2], **D.M.Whittaker**[1], **R.A.Bradley**[1], **K.Guda**[1], **S.A. Rizeiqi**[1], **R.Bouchekioua**[1], **D.Sanvitto**[3], **P.R.Eastham**[5], **M.S.Skolnick**[1], **M.Wouters**[2], **B.Deveaud-Pledran**[2], **M.Richard**[4], **R.Andre**[4], **L. S. Dang**[4] (*[1]Sheffield University, Department of Physics and Astronomy, Hicks Building, Sheffield S37RH, UK, [2]Ecole Polytechnique Fdrale de Lausanne (EPFL, EPFL, Station 3, CH-1015 Lausanne, Switzerland, [3]3Dep. Fisica de Materiales, Universidad Autonoma de Madrid, 28049 Madrid, Spain, [4]Institut Nel, CNRS and Universit J. Fourier, 38042 Grenoble France, [5]Department of Physics, Imperial College, London SW7 2AZ, UK*)

E3e 12:15 – 12:30 **J. Karch**[1], **P. Olbrich**[1], **S.A. Tarasenko**[2], **T. Schoenberger**[1], **C. Reitmaier**[1], **Z.D. Kvon**[3], **S.D. Ganichev**[1] (*[1]Terahertz Center, University of Regensburg, 93040 Regensburg, Germany, [2]A.F. Ioffe Physical-Technical Institute, Russian Academy of Sciences, 194021 St. Petersburg, Russia, [3]Institute of Semiconductor Physics, Russian Academy of Sciences, 630090 Novosibirsk, Russia*)

Observation of the orbital circular photogalvanic effect in quantum-confined structures

12:30 – 14:00 **Lunch Break**

Session E4 (Main Hall) 14:00 – 16:00 Quantum Hall effect and coherent transport

E4a 14:00 – 14:15 **W. K. Hew**[1], **K. J. Thomas**[2], **M. Pepper**[1], **I. Farrer**[1], **D. Anderson**[1], **G. A. C. Jones**[1], **D. A. Ritchie**[1] (*[1]Cavendish Laboratory, University of Cambridge, J. J. Thomson Avenue, Cambridge CB2 1TP, United Kingdom, [2]Dept. of Electronic and Electrical Engineering, Sungkyunkwan University, Suwon 440-746, South Korea*)

Nascent Wigner lattice in quantum wires of shallow confinement

E4b 14:15 – 14:30 **S. Nakamura, M. Hashisaka, Y. Yamauchi, K. Chida, S. Kasai, T. Ono, K. Kobayashi** (*Institutefor Chemical Research, Kyoto University, Gokasho, Uji, Kyoto 611-0011, Japan*)

Shot Noise in a Quantum Point Contact in High Magnetic Fields

E4c 14:30 – 15:00 **L. Tiemann, Y. Yoon, S. Schmult, M. Hauser, W. Dietsche, K. von Klitzing** (*Max-Planck Institute for Solid State Research, Heisenbergstr. 1, 70569 Stuttgart , Germany*)

New aspects of the total filling factor one state

E4e 15:15 – 15:30 **K. Takashina, K. Nishiguchi, Y. Ono, A. Fujiwara, T. Fujisawa, Y. Hirayama, K. Muraki** (*NTT Basic Research Laboratories, NTT Corporation, 3-1, Morinosato Wakamiya, Atsugi-shi, Kanagawa 243-0198, Japan*)

Electron-hole transport in a 40 nm thick silicon slab

E4f 15:30 – 15:45 **P. Giudici[1,2], N. Kumada[1], K. Muraki[1]** ([1]*NTT Basic Research Laboratories,NTT Corporation, , 3-1Morinosato-Wakamiya,Atsugi 243-0198, Japan,* [2]*Institute of Experimental and Applied Physics, Regensburg University, Universitaetstr. 31 93040 Regensburg, Germany*)

Intrinsic gap of the ν_T= 1 bilayer exciton condensate

E4g 15:45 – 16:00 **A. . Croxall, K. Da. Gupta, C. A. Nicoll, I. Farrer, H. E. Beere, D. A. Ritchie, M. Pepper** (*Cavendish Laboratory, University of Cambridge, JJ Thomson Avenue, Cambridge CB3 0HE, UK*)

Towards the ground state of an electron-hole bilayer

Poster Session Tu-eP (Meeting Room 501, 502) 16:00–18:00

Tu-eP1 **K. Yamashita, K. Asano, T. Ohashi, T. Ogawa** (*Department of Physics, Osaka University, 1-1 Toyonaka, Osaka , Japan*)

Quantum Condensation in the electron-hole system with density imbalance

Tu-eP2 **T. Köppen[1], D. Franz[1], A. Schramm[2], Ch. Heyn[1], D. Heitmann[1], T. Kipp[1]** ([1]*Institute of Applied Physics, University of Hamburg, Jungiusstr. 11, 20355 Hamburg , Germany,* [2]*Optoelectronics Research Center, Tampere University of Technology, Korkeakoulunkatu 3, 33720 Tampere, Finland*)

Direct excitation of singlet and triplet states in quantum-dot helium by resonant Raman spectroscopy

Tu-eP3 **J. Wakabayashi, S. Wada, N. Okuda** (*Department of Physics, Chuo University, 1-13-27 Kasuga, Bunkyo-ku, Tokyo 112-8551, Japan*)

Magnetoresisitance of two-dimensional electron systems in random magnetic fields with zero mean

Tu-eP4 **E. Räsänen[1], S. Pittalis[2], M. A. L. Marques[3], C. R. Proetto[2], E. K. U. Gross[2]** ([1]*Nanoscience Center, Department of Physics, University of Jyväskylä, P.O. Box 35, FI-40014 University of Jyväskylä, Finland,* [2]*Institut für Theoretische Physik, Freie Universität Berlin, Arnimallee 14, D-14195 Berlin, Germany,* [3]*CNRS, Universit Lyon I, Villeurbanne Cedex, UMR 5586, Domaine scientifique de la Doua, F-69622 Villeurbanne Cedex, France*)

Exchange and correlation in two-dimensional systems: Derivation of accurate and practical density functionals

Tu-eP5 **M. Akabori[1,2], T. Q. Trinh[1], M. Kudo[1], Th. Schäpers[2], H. Hardtdegen[2], T. Suzuki[1]** ([1]*Center for Nano Materials and Technology, Japan Advanced Institute of Science and Technology, 1-1, Asahidai, Nomi, Ishikawa 923-1292, Japan,* [2]*Institute of Bio- and Nanosystems (IBN-1), Research Centre Jülich, D-52425 Jülich, Germany*)

Strain-enhanced electron mobility anisotropy and piezoelectric scattering in InGaAs/InP 2DEGs

Tu-eP6 **B. Kaestner[1], C. Leicht[1], V. Kashcheyevs[2,3], T. Weimann[1], K. Pierz[1], H. W. Schumacher[1]** ([1]*Physikalisch-Technische Bundesanstalt, Bundesallee 100, 38116 Braunschweig, Germany,* [2]*Institute for Solid State Physics, University of Latvia, Riga LV-1063, Latvia,* [3]*Faculty of Physics and Mathematics, University of Latvia, Riga LV-1002, Latvia*)

Magnetic field dependent non-adiabatic quantized charge pumping

Tu-eP7 **C. Faugeras[1], M. Orlita[1], J. Kunc[1], S. Deutschlander[1], G. Martinez[1], M. Potemski[1], P.Y. Yu[2], A. Riedel[3], R. Hey[3], K.J. Friedland[3], G. Karczewski[4], T. Wojtowicz[4]** ([1]*LNCMI-CNRS, BP 166 grenoble cedex 9 38042, France,* [2]*Department of Physics, University of California, Berkeley, CA 94720, USA,* [3]*Paul Drude Institute, Hausvogteiplatz 5-7, D-10117 Berlin, Germany,* [4]*Institute of Physics, Polish Academy of Sciences, Al. Lotnikow 32/46, 02-668 Warsaw, Poland*)

Magneto-polarons in quasi two-dimensional electron systems

Tu-eP8 **J.M.S. Orr[1], K.C. Chuang[1], R.J. Nicholas[1], P.D. Buckle[2]** ([1]*Physics Dept, Oxford University, Clarendon Laboratory, Parks Rd, Oxford, UK.,* [2]*QinetiQ, , Malvern UK*)

Resonant coupling effects in InSb quantum well heterostructures

Tu-eP9 **S. Wiedmann[1], G.M. Gusev[2], O.E. Raichev[3], A.K. Bakarov[2], J.C. Portal[1]** ([1]*LNCMI-CNRS / INSA, 25 rue des Martyrs, BP 166, Grenoble cedex 9 38042, France,* [2]*Instituto de Fsica da Universidade de So Paulo, So Paulo, SP, Brazil,* [3]*Institute of Semiconductor Physics, NAS of Ukraine, Kiev, Ukraine,* [4]*Institut Universitaire de France, 103, bd Saint-Michel 75005 Paris, France*)

Microwave induced magnetoresistance oscillations and inelastic scattering time in double quantum wells

Tu-eP10 **G.J. Schinner[1], H.P. Tranitz[2], W. Wegscheider[2], J.P. Kotthaus[1], S. Ludwig[1]** ([1]*CeNS and Department of Physics, University of Munich, Geschwister-Scholl-Platz 1, 80539 Muenchen 80539, Germany,* [2]*Institut fuer Experimentelle und Angewandte Physik, University of Regensburg, 93040 Regensburg, Germany*)

Non-equilibrium interaction of electrons and phonons on the nanoscale

Tu-eP11 **B. . PIOT[1], D.K. Maude[1], U. Gennser[2], A. Cavanna[2], D. Mailly[2]** (*[1]Laboratoire National des Champs Magntiques Intenses, Grenoble High Magnetic Field Laboratory, Centre National de la Recherche Scientifique , 25 Avenue des Martyrs, F-38042 Grenoble, France, [2] Laboratoire de Photonique et de Nanostructures, Centre National de la Recherche Scientifique, Route de Nozay, 91460 Marcoussis, France*)

A disordered GaAs 2D electron gas in a strong in-plane magnetic field: Interplay between spin, orbital effects and localization

Tu-eP12 **N. A. J. M. Kleemans[1], J. van Bree[1], A. O. Govorov[2], G. J. Hamhuis[1], R. Nötzel[1], A. Yu. Silov[1], P. M. Koenraad[1]** (*[1]Photonics and Semiconductor Nanophysics, Eindhoven University of Technology, Den Dolech 2, Eindhoven 5600 MB, The Netherlands, [2]Department of Physics and Astronomy, Ohio University, Athens, USA*)

Observation of the Mahan exciton in shallow quantum dots strongly coupled to an electron reservoir

Tu-eP13 **L. Tung[1], X.-G. Wu[2], L. N. Pfeiffer[3], K. W. West[3], Y-J. Wang[1,1]** (*[1]National High Magnetic Field Laboratory-FSU, A126 NHMFL-FSU, 1800 E. Paul Dirac Dr., Tallahassee, Florida 32304, USA, [2]Chinese Academy of Science, Department of Physics, Institute of Semiconductor, Chinese academy of Science, China, [3]Bell Laboratorys, Bell Laboratorys, Lucent Technologies, Murray Hill, New Jersey, USA*)

Unusual cyclotron resonance line broadening in ultra-high mobility two-dimensional electron system

Tu-eP14 **S. R. McKibbin[1], W. R. Clarke[1], A. Fuhrer[1], T. C. G. Reusch[2], M. Y. Simmons[1,2]** (*[1]School of Physics, University of New South Wales, Sydney, 2052, Australia, [2]Australian Research Council Centre of Excellence for Quantum Computer Technology, Sydney, 2052, Australia*)

3D nanoscale control of doping profiles in silicon

Tu-eP15 **Y. Mitsumori[1,2], Y. Miyahara[1], H. Kosaka[1,2], K. Edamatsu[1]** (*[1]Research Institute of Electrical Communication, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai, Miyagi 980-8577, Japan, [2]CREST, Japan Science and Technology Agency,*)

Coherent manipulation of an exciton in a single quantum dot using a heterodyne pump-probe technique

Tu-eP16 **D. G. Rees, H. Ikegami, K. Kono** (*Low Temperature Physics Group, RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan*)

Transport properties of a quasi-one-dimensional electron system on the surface of liquid helium

Tu-eP17 **Yu. B. Vasilyev** (*Ioffe Physical Technical Institute, St.-Petersburg, Russia*)

Photoelectromagnetic effect in two-dimensional systems under cyclotron resonance excitation

Tu-eP18 **K. Takehana[1], Y. Imanaka[1], T. Takamasu[1], M. Henini[2]** (*[1]National Institute for Materials Science, 3-13 Sakura, Tsukuba, Ibaraki 3050003, Japan, [2]School of Physics and Astronomy, Nottingham Nanotechnology and Nanoscience Centre, University of Nottingham, Nottingham, UK*)

Cyclotron resonance in 2DES incorporating QD layer

Tu-eP19 **U. Wurstbauer[1], S. Knott[1], C. G. Westarp[1], N. Mecking[1], K. Rachor[1], D. Heitmann[1], W. Wegscheider[2], W. Hansen[1]** (*[1]Institute for Applied Physics,University of Hamburg, Hamburg, Germany, [2]Solid State Physics Laboratory, ETH Zurich, Zurich, Switzerland*)

Anomalous magnetotransport and cyclotron resonance of high mobility magnetic 2DHGs in the quantum Hall regime

Tu-eP20 **A.A. Greshnov, G.G. Zegrya** (*Ioffe Physico-technical Institute RAS, 26 Polytekhnicheskaya, St Petersburg 194021, Russia*)

Relevant quantum corrections to conductivity in non-zero magnetic field

Tu-eP21 **K. Yoshizawa, K. Takayanagi** (*Department of Physics, Sophia University, 7-1 Kioi-cho, Chiyoda-ku, Tokyo, Japan*)

Spin density wave in integer quantum Hall systems

Tu-eP22 **R. G. Mani** (*Dept. of Physics and Astronomy, Georgia State University, 29 Peachtree Center Avenue, Atlanta, GA 30303 U.S.A.*)

Photo-induced decay of Shubnikov-de Haas oscillations in the regime of the radiation-induced zero-resistance states in the GaAs/AlGaAs system

Tu-eP23 **M. Hashisaka[1], A. Helzel[2], S. Nakamura[1], L. Litvin[2], T. Ono[1], H.-P. Traniz[2], W. Wegscheider[2], C. Strunk[2], K. Kobayashi[1]** (*[1]Institute for Chemical Research, Kyoto University, Institute for Chemical Research, Kyoto University, Uji, Kyoto 611-0011, Japan, [2]Institut für experimentelle und angewandte Physik, Universität Regensburg, D-93040, Regensburg, Germany*)

Temperature Dependence of the Visibility in an Electronic Mach-Zehnder Interferometer

Tu-eP24 **I.A. Dmitriev** (*Institute of Nanotechnology, Forschungszentrum Karlsruhe, 76021Karlsruhe, Germany*)

A unified description of nonequilibrium magnetooscillations in high Landau levels

Tu-eP25 **S. Nitta, H. K. Choi, S. Yamada** (*Center for Nano Materials and Technology, JAIST, 1-1, Asahidai, Tatsunokuchi, Nomi, Ishikawa 923-1292 Japan*)

In-plane anisotropic transport in 2DEGs having a strong spin-orbit coupling in InGaAs/InALAs hetero-junctions

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g-Factor of low mobility 2D GaAs electron gas as determined from high magnetic field experiments

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The pre-edge XANES study of substitutional and interstitial Mn impurities in (Ga,Mn)As

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Electric field effects on magnetocrystalline anisotropy in ferromagnetic monolayers

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Carrier Density Dependence of Spin-Orbit Interaction in InAsSb Quantum Wells

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Fabrication of $Fe_3Si/CaF_2/Fe_3Si$ ferromagnetic resonant tunneling diodes on Si(111) by molecular beam epitaxy

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Effect of Vacancies on Magnetism in Graphene

Tu-eP32 **M. Rontani[1], L. J. Sham[2]** ([1]*CNR-INFM Research Center S3, Modena, Italy,* [2]*Dept of Physics, University of California at San Diego, La Jolla, California*)

Josephson oscillations between exciton condensates in electrostatic traps

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Electroacoustic excitation of nanomembranes

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Triple quantum dots: two path transport and electrostatic stability diagram

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Silencing a 'noisy' AlGaAs/GaAs Wafer

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Optically induced ballistic electron transport across quantum wires

Tu-eP37 **M. Kataoka, H. Kakemoto, R. P. G. McNeil, C. J. B. Ford, C. H. W. Barnes, D. Anderson, G. A. C. Jones, I. Farrer, D. A. Ritchie** (*Cavendish Laboratory, University of Cambridge, Semiconductor Physics Group, Cavendish Laboratory, J J Thomson Avenue, Cambridge CB3 0HE, United Kingdom*)

Quantised charge pumping by submicrosecond surface-acoustic-wave pulse

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Coupled double row formation in a quasi-one-dimensional wire

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Phases and periods of Aharonov-Bohm oscillations in parallel coupled double quantum dot

Tu-eP40 **O. Gökta, Jürge. Weis, Klau. vo. Klitzing** (*Max Planck Institute for Solid State Research, Heisenbergstr. 1, D-70569, Stuttgart , Germany*)

Observation of a zero bias anomaly and single-electron charging in submicron GaAs/AlGaAs Corbino devices

Tu-eP41 **Y. Chen, C. Chao, S. Huang, S. Cheng** (*Department of Electrophysics, National Chiao-Tung University, EF458, Engineering Building VI, No 1001, Ta-Hsueh Rd, Hsinchu , Taiwan*)

Singlet-Triplet Transitions in Highly Correlated Nanowire Quantum Dots

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Manipulation of Spin Distribution in a Ferromagnetic/non-Magnetic Hybrid-Double-Quantum-Disk Structure

Tu-eP43 **H. Tamura, S. Sasaki** (*NTT Basic Research Laboratories, 3-1 Morinosato-Wakamiya, Atsugi, Kanagawa, 243-0198, Japan*)

Fano-Kondo effect in side-coupled double quantum dot

Tu-eP45 **J. . Särkkä, A. Harju** (*Department of Applied Physics, Helsinki University of Technology, P.O.B. 4100 FI-02015 TKK, Finland*)

Control of two-electron quantum dot by external fields

Tu-eP46 **S. F. Fischer[1], S. S. Buchholz[1], U. Kunze[1], D. Reuter[2], A. D. Wieck[2], J. P. Bird[3], V. Mitin[3]** ([1]*Electronic Materials and Nanoelectronics, Ruhr-University of Bochum, D-44780 Bochum, Germany,* [2]*Applied Solid State Physics, Ruhr-University of Bochum, D-44780 Bochum, Germany,* [3]*Dep. of Electrical Engineering, University at Buffalo, Buffalo, New York 14260-3000, USA*)

Novel observations of the “0.7”-conductance anomaly in etched quantum point contacts with large subband spacings

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Spin-orbit interaction and quantum transport in a quantum dot in a higher spin state

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Zeeman spin-splitting anisotropy in ballistic hole quantum wires fabricated on a (100)-oriented AlGaAs/GaAs heterostructure

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Electron spin-nuclear spin interaction in a hetero-g-factor double quantum dot in Spin-Blockade region

Tu-eP51 **F. Sfigakis, C. J. B. Ford, T.-M. Chen, I. Farrer, D. A. Ritchie, M. Pepper** (*Cavendish Laboratory, University of Cambridge, J.J. Thomson Avenue, Cambridge CB3 0HE, United Kingdom*)

Evidence of spin gap physics in fully spin-split quantum wires

Tu-eP52 **H. A. Nilsson**[1], **P. Caroff**[1], **C. Thelander**[1], **M. Larsson**[1], **J. B. Wagner**[2], **L-E. Wernersson**[1], **L. Samuelson**[1], **H. Q. Xu**[1] (*[1]Solid State Physics, Lund University, Box 118, S-22100 Lund, Sweden, [2]Division of Polymer and Materials Chemistry/nCHREM, Lund University, Box 124, S-22100 Lund, Sweden*)

Giant, level-dependent g-factors and spin correlations in InSb nanowire quantum dots

Tu-eP53 **S. Kalliakos**[1], **M. Rontani**[2], **V. Pellegrini**[1], **C. P. Garcia**[1], **A. Pinczuk**[3,4], **G. Goldoni**[2,5], **E. Molinari**[2,5], **L. N. Pfeiffer**[4], **K. W. West**[4] (*[1]NEST, INFM-CNR and Scuola Normale Superiore, Pisa, Italy, [2]S3 INFM-CNR , Modena, Italy, [3]Appl. Phys. and Appl. Math. and Physics, Columbia University, New York, USA, [4]Bell Laboratories, Alcatel-Lucent, Murray Hill, USA, [5]Dipartimento di Fisica, Università degli Studi di Modena e Reggio Emilia, Modena, Italy*)

Observation of the collective modes of an electron molecule in a quantum dot

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Stability of III-V and IV-VI Nanowires - a theoretical study

Tu-eP55 **Akira Oguri**[1], **Yunori Nisikawa**[1], **Yoichi Tanaka**[2] (*[1]Graduate School of Science, Osaka City University, Sumiyoshi-ku, Osaka 558-8585, Japan, [2]Condensed Matter Theory Laboratory, RIKEN, Wako, Saitama 351-0198, Japan*)

Ground-state properties of a single Anderson impurity coupled to superconductors

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Effect of disorder on the quantum coherence in mesocopic wires

Tu-eP57 **H. Akera** (*Division of Applied Physics, Graduate School of Engineering, Hokkaido University, Kita 13, Nishi 8, Sapporo 0608628, Japan*)
AC quantum Hall effect and the Hall potential distribution

Tu-eP58 **C. Betthausen[1], A. Vogl[1], V. Kolkovsky[2], G. Karczewski[2], T. Wojtowicz[2], D. Weiss[1]** (*[1]Department of Physics, Regensburg University, Universitaetsstr. 31, Regensburg 93040, Germany, [2]Institute of Physics, Polish Academy of Sciences, Al. Lotnikow 32/46, Warsaw 02-668, Poland*)
Fractional Quantum Hall Effect in CdTe and $Cd_{1-x}Mn_xTe$ high electron mobility Quantum Wells

Tu-eP59 **Z. Ge[1,2], W. Pan[2], D.C. Tsui[1], L.N. Pfeiffer[3], K.W. West[3]** (*[1]Department of Electrical Engineering, Princeton University, Princeton, New Jersey 08544, USA, [2]Sandia National Laboratories, Albuquerque, New Mexico 87185, USA, [3]Bell Laboratories, Alcatel-Lucent Inc., Murray Hill, New Jersey 07974, USA*)
Transition from fractional quantum Hall liquid to pinned Wigner solid in two dimensional charge carrier systems

Tu-eP60 **A. Wjs, G. Möller** (*Cavendish Laboratory, University of Cambridge, J J Thomson Avenue, Cambridge CB3 0HE, UK*)
Numerical search for non-Abelian statistics in fractional quantum Hall systems

Tu-eP61 **W. Lee, S.-H. Sim** (*Department of Physics, Korea Advanced Institute of Science and Technology, Natural Science Building #3310, KAIST, Guseong-dong, Yuseong-gu, Daejeon 305-701, Republic of Korea*)
Coulomb Blockade in an Antidot Molecule in the Integer Quantum Hall Regime

Tu-eP62 **A. Endo[1], N. Shibata[2], Y. Iye[1]** (*[1]Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha , Kashiwa, Chiba 2778581, Japan, [2]Department of Physics, Tohoku University, 6-3 Aoba, Aoba-ku, Sendai, Miyagi 9808578, Japan*)
Collapse of the fractional quantum Hall state by a unidirectional periodic potential modulation

Tu-eP63 **K. Chida[1], M. Hashisaka[1], Y. Yamauchi[1], S. Nakamura[1], T. Machida[2], T. Ono[1], K. Kobayashi[1]** (*[1]Institute for Chemical Research, Kyoto University, Kyoto, Japan, [2]Institute of Industrial Science, University of Tokyo, Tokyo, Japan*)
Non-equilibrium Noise Induced by the Breakdown of the Quantum Hall Effect

Tu-eP64 **C. Altimiras, H. l. Sueur, A. Cavanna, U. Gennser, D. Mailly, F. Pierre** (*CNRS, Laboratoire de Photonique et de Nanostructures (LPN) - Phynano Team, route de Nozay, 91460 Marcoussis, France*)
Energy relaxation along edge channels in the integer quantum Hall regime

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Two-terminal resistance of an electron bilayer system in the strongly correlated total filling factor 1 state

Tu-eP67 **M. V. Yakunin[1], Ann. d. Visser[2], Giann. Galistu[2]** ([1]*Institute of Metal Physics, RAS, Ural Branch, S.Kovalevskaya Str.,18 620041, Russia,* [2]*Van der Waals 寰 Zeeman Institute, University of Amsterdam, Valckenierstraat 65, 1018 XE Amsterdam, The Netherlands*)

Specific features of InxGa1-xAs/GaAs double quantum well as manifested in the quantum Hall effect under tilted fields

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Spectroscopic study of nuclear magnetic resonance mediated by oscillating electron spin domain walls

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Spin-Hall conductance fluctuations in quantum spin-Hall network model

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Spin relaxation mechanism in a quantum Hall ferromagnet

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Spin resonance of two dimensional hole system

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Spin splittings in the n-HgTe/Cd_xHg_{1-x}Te quantum well with inverted band structure

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Spin-related origin of the transport feature at filling factor 7/11

Tu-eP74 **K. -S. Park**[1], **K. S. Yi**[1], **K. Moon**[2] (*[1]Department of Physics, Pusan National University, Busan 609-735, Korea, [2]Department of Physics, and IPAP, Yonsei University, Seoul 120-749, Korea*)
Manifestations of Topological Phases on Surface States in Topological Insulators

Tu-eP75 **L. Meza-Montes**[1], **A. H. Rodriguez**[2], **S. E. Ulloa**[3] (*[1]Instituto de Fsica Universidad Autnoma de Puebla, Av. 18 Sur y San Claudio, Edif. 14-B, Cd. Universitaria, Puebla, Pue. 72570, Mexico, [2]Universidad Autnoma de la Ciudad de Mexico, Calzada Ermita-Iztalapa s/n Col. Lomas de Zaragoza C.P. 09620 Del. Iztalapa, Mexico, D.F., Mexico, [3]Dept. Phys. and Astron. Ohio University, Clippinger Res. Labs, Athens, OH 45701 USA*)
Dynamical modulation of exchange interaction in two-electron quantum dot molecules

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Rashba-Dresselhaus spin orbit effects in quantum wells

Tu-eP77 **M. Niwa**[1], **M. Kohda**[1,2], **Y. Kunihashi**[1], **J. Nitta**[1] (*[1]Department of Materials Science, Tohoku University, 6-6-02, Aramaki-aza Aoba, Aoba-ku, Sendai, Miyagi 9808579, Japan, [2]PRESTO, Japan Science and Technology Agency, 4-1-8, Honcho, Kawaguchi, Saitama 3320012, Japan*)
In-plane anisotropy of spin relaxation under competition between spin orbit interaction and Zeeman effect in InGaAs/InAlAs narrow wire structures

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Suppression of microwave induced magnetic oscillation by Rashba effect in InGaAs/InAlAs heterostructures

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Spin injection using tunable antidot potential in semiconductor heterostructure with spin-orbit interaction

Tu-eP80 **N. Tang**[1], **B. Shen**[1], **K. Han**[1], **Z. X. Qin**[1], **G. Y. Zhang**[1], **X. Q. Shen**[2], **H. Okumura**[2] (*[1]School of Physics, Peking University, No.5.Yiheyuan Street, Haidian district, Beijing, P.R.China 100871, P. R. China, [2]Power Electronics Research Center, National Institute of Advanced Industrial Science and Technology (AIST), Umezono 1-1-1, Central 2, Tsukuba-shi, Ibaraki 305-8568, Japan*)
The Spin Splitting of the Two-dimensional Electron Gas in AlxGa1-xN/GaN Heterostructures

Tu-eP81 **N. T. Bagraev**[1], **N. G. Galkin**[1], **W. Gehlhoff**[2], **L. E. Klyachkin**[1], **A. M. Malyarenko**[1], **I. A. Shelykh**[3] (*[1]Ioffe Physical-Technical Institute of RAS, Politekhnicheskaya 26, St. Petersburg, 194021, Russia, [2]Institut fuer Festkoerperphysik, Technische Universitaet Berlin, , D-10623 Berlin, Germany, [3]Polytechnical University, St. Petersburg, 195251, Russia*)
Fractional forms of 0.7 feature

Tu-eP82 **J. Li, L. B. Zhang, Ka. Chang** (*SKSLM, Institute of Semiconductors, Chinese Academy of Sciences, Tsinghua East Road No. Jia 35, Beijing 100083, China*)
The topological edge states in semiconductors with inverted band structures

Tu-eP83 **R. L. Kallaher[1], J. J. Heremans[1], N. Goel[2], S. J. Chung[2], M. B. Santos[2]** (*[1]Virginia Tech, Department of Physics, Robeson Hall, Blacksburg, Virginia 24061, USA, [2]University of Oklahoma, Department of Physics, Norman, Oklahoma 73019, USA*)

Spin and phase coherence in quasi-1D electron systems under strong spin-orbit interaction

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Effect of spin relaxation in Anderson localization in quantum wires

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The interplay between the confinement and crystallographic anisotropy in ballistic hole quantum wires

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Anomalous CPGE of the 2DEG in AlxGa1-xN/GaN heterostructures at room temperature

Tu-eP87 **T. Otsuka, E. Abe, Y. Iye, S. Katsumoto** (*Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba 2778581, Japan*)

Detection of spin polarization in a quantum wire

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Spin dependent current induced by spatial gradient of spin orbit interaction in Y-branch shaped narrow wire structures

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Electron Spin Resonance in Triple Quantum Dots

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Conductance images between two STM probes in carbon nanotubes and graphene

Tu-eP91 **S. Miyamoto[1,2], K. Nishiguchi[1], Y. Ono[1], K. M. Itoh[2], A. Fujiwara[1]** (*[1]NTT Basic Research Laboratories, NTT Corporation, 3-1, Morinosato Wakamiya, Atsugi, Kanagawa, 243-0198, Japan, [2]School of Fundamental Science and Technology, Keio University, 3-14-1, Hiyoshi, Kouhoku, Yokohama, 223-8522, Japan*)
Single-electron activation over an oscillating barrier in silicon nanowire MOSFETs

Tu-eP92 **S. Mikhailov** (*Institute of Physics, University of Augsburg, Universitaetsstr. 1, D-86135, Germany*)
Non-linear electrodynamics of graphene

Tu-eP93 **J. Z. Bernad[1], U. Zuelicke[1], K. Ziegler[2]** (*[1]Massey University, Palmerston North 4442, New Zealand, [2]University of Augsburg, Augsburg, Germany*)
AC transport properties of single and bilayer graphene

Tu-eP94 **T. Oshima, K. Matsuno, H. Suzuura** (*Division of Applied Physics, Graduate School of Engineering, Hokkaido University, Kita 8 Nishi 5, Sapporo, Japan 060-8628, Japan*)
Energy splitting between bright and dark excitons in carbon nanotubes

Tu-eP95 **X. R. Wang[1], We. Zhu[2], Qi. We. Shi[2]** (*[1]Physics Department, The Hong Kong University of Science and Technology, Clear Water Bay, Hong Kong SAR, China, [2]Hefei National Laboratory for Physical Sciences at Microscale, University of Science and Technology of China, Hefei 230026, China*)
Density of states of Landau subbands in disordered graphene

Tu-eP96 **R. Danneau[1,2,3], F. Wu[1], A. Fay[1], M.F. Craciun[4,5], S. Russo[4,5], M.Y. Tomi[1], J.B. Oostinga[4,6], J. Wengler[1], S. Salmilehto[1], A.F. Morpurgo[4,6], P.J. Hakonen[1]** (*[1]Low Temperature Laboratory, Helsinki University of Technology, Finland, [2]Institut für Nanotechnologie, Forschungszentrum Karlsruhe , Germany, [3]Physikalisches Institut, Universität Karlsruhe, Germany, [4]Kavli Institute of Nanoscience, Delft University of Technology, The Netherlands, [5]Department of Applied Physics, University of Tokyo, Tokyo, Japan, [6]Dpartement de Physique de la Matière Condense, Universit de Genève, Switzerland*)
Shot noise and transport in graphene: from large strips to nanoribbons

Tu-eP97 **D. Yoshioka[1], S. Nakakura[1], Y. Nagai[2]** (*[1]Department of Basic Science, The University of Tokyo, 3-8-1 Komaba, Meguro, Tokyo 153-8902, Japan, [2]Department of Physics, The University of Tokyo, 7-3-1 Hongo, Bunkyo, Tokyo 113-0033, Japan*)
Unexpected current distribution in graphene ribbon with zigzag edges

Tu-eP98 **P. Neugebauer, M. Orlita, C. Faugeras, A.-L. Barra, M. Potemski** (*National High Magnetic Field Laboratory, Grenoble, CNRS, 25 rue des Martyrs, BP166, Grenoble Cedex 9 38042, France*)
How ideal can graphene be?

Tu-eP99 **M. Lafkioti, T. Lohmann, B. Krauss, K. v. Klitzing, J. Smet** (*Max Planck Institute for Solid State Research, Heisenbergstr. 1 70569, Stuttgart, Germany*)
Transport properties of graphene prepared on a hydrophobic self-assembled layer

Tu-eP100 **M. Noro, M. Koshino, T. Ando** (*Department of Physics, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8551, Japan*)
Screening properties of monolayer and randomly stacked graphenes

Tu-eP102 **M. Koshino, Y. Arimura, T. Ando** (*Department of Physics, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8551, Japan*)
Orbital diamagnetism in non-uniform magnetic fields in graphene

Tu-eP103 **F. Molitor, C. Stampfer, A. Jacobsen, J. Güttinger, S. Hellmüller, T. Ihn, K. Ensslin** (*Solid State Physics Laboratory, ETH Zurich, Schafmattstrasse 16, 8093 Zurich 8093, Switzerland*)
Transport gap in graphene constrictions

Tu-eP104 **D. Chae, T. Lohmann, K. vo. Klitzing, J. H. Smet** (*Max-Planck-Institute for Solid State Research, Stuttgart 70569, Germany*)
Magnetoconductivity in graphene Corbino devices

Tu-eP105 **S. Motooka[1], Y. Ujiie[1], N. Aoki[1], Y. Ochiai[1], D. K. Ferry[2], J. P. Bird[3]** ([1]*Graduate School of Advanced Integration Science, Chiba University, 1-33 Yayoi, Inage, Chiba 263-8522, Japan,* [2]*Deapartment of Electrical Engineering, Arizona State University, Tempe, Arizona 85287-5706, USA,* [3]*Department of Electrical Engineering, University at Buffalo, the State university of New York, Buffalo, NY 14260-1920, USA*)
Quasi-Periodic Conductance Fluctuations in Few-Layer Graphene

Tu-eP106 **M. S. Fairbanks[1], T. P. Martin[2], B. C. Scannell[1], C. A. Marlow[1], S. A. Brown[3], R. P. Taylor[1]** ([1]*Department of Physics, University of Oregon, 1371 E 13th Ave. Eugene, Oregon 97403, USA,* [2]*School of Physics, University of New South Wales, Sydney, Australia 2052,* [3]*Department of Physics and Astronomy, University of Canterbury, Christchurch, Private Bag 4800, New Zealand*)
Toward chaotic electron transport in bismuth nanocluster wires

Tu-eP107 **S. Ko[1], Y. Y. Lee[1], M. H. Son[1], M. S. Lee[1], J. H. Oh[1], C. Jeon[2], W. Song[2], C. -Y. Park[2], S. -W. Lee[3], B. H. Park[3], D. Ahn[1]** ([1]*Institute of Quantum Information Processing Systems, University of seoul, Seoul, Korea , Korea,* [2]*BK21 Physics research division and CNNC, Sungkyunkwan University, Suwon, Korea,* [3]*Department of Applied Physics, Konkuk University, Seoul, Korea*)
Transport properties of quantum dot with thermally decomposited graphene

Tu-eP108 **V. Ryzhii[1], M. Ryzhii[1], M.S. Shur[2], V. Mitin[3]** ([1]*Computational Nanoelectronics Laboratory, University of Aizu and Japan Science and Technology Agency, Ikki-machi, Aizu-Wakamatsu 965-8580, Japan,* [2]*Department of Electrical, Electronics, and Systems Engineering, Rensselaer Polytechnic Institute, Troy, New York 12180, USA,* [3]*Department of Electrical Engineering, University at Buffalo, Buffalo, New York, 14260, USA*)
Negative terahertz dynamic conductivity in electrically induced

Tu-eP109 **P. Dietl[1], G. Metalidis[1], D. Golubev[2,1], P. San-Jose[3], E. Prada[3], H. Schomerus[3], G. Schoen[1,2]** ([1]*Institut fuer Theoretische Festkoerperphysik and DFG Center for Functional Nanostructures (CFN), University of Karlsruhe, D-76128 Karlsruhe, Germany,* [2]*Forschungszentrum Karlsruhe, Institut fuer Nanotechnologie, 76021 Karlsruhe, Germany,* [3]*Department of Physics, Lancaster University, Lancaster, LA1 4YB United Kingdom*)
Disorder-induced pseudodiffusive transport in graphene nanoribbons

Tu-eP110 **M. Roy, P. A. Maksym** (*Department of Physics and Astronomy, University of Leicester, University Road, Leicester LE1 7RH, UK*)
Interacting electrons in semiconducting carbon nanotube quantum dots: calculation of the excited states by exact diagonalisation

Tu-eP111 **M. Ferrier[1], M. Monteverde[1], C. Ojeda[1], R. Weil[1], S. Gueron[1], H. Bouchiat[1], J.N. Fuchs[1], D. Maslov[1,2]** (*[1]Laboratoire de physique des solides, CNRS UMR 8502, Orsay University, Universite Paris sud 91405, France, [2]University of Florida , Gainesville, FL 32611, USA*)

Transport and electron scattering time in single and bilayer graphene as probes of the nature of impurity scattering.

Tu-eP112 **T. Watanabe[1], H. Karasawa[1], T. Komori[1], M. Suemitsu[1,3], V. Ryzhii[2,3], T. Otsuji[1,3]** (*[1]Research Institute of Electrical Communication, Tohoku University, Sendai, Japan, [2]Department of Computer Science and Engineering, University of Aizu, Aizu-Wakamatsu, Japan, [3]JST-CREST, Tokyo, Japan*)

Observation of carrier relaxation and recombination dynamics in optically pumped epitaxial graphene heterostructures

Tu-eP113 **J. . Matthews[1], E. A. Hoffmann[1], H. A. Nilsson[2], L. A. Samuelson[2], H. Linke[1,2]** (*[1]Department of Physics and Materials Science Institute, University of Oregon, 1274 University of Oregon, Eugene, OR 97403, United States, [2]Solid State Physics/The Nanometer Structure Consortium, Lund University, Box 118, S-221 00 Lund, Sweden*)

Phonon-mediated heat flow in heterostructure nanowires via electron-phonon interaction

Tu-eP114 **G. Giavaras[2], P. A. Maksym[1], M. Roy[1]** (*[1]Department of Physics and Astronomy, University of Leicester, Leicester LE1 7RH, UK, [2]Department of Materials, Oxford University, Oxford OX1 3PH*)

Electron confinement in single layer graphene quantum dots

Tu-eP115 **J. Guettinger, J. Seif, A. Cappelli, C. Stampfer, K. Ensslin, T. Ihn** (*Solid State Physics Laboratory, ETH Zurich, Schafmattstrasse 16, Zurich 8093, Switzerland*)

Time-resolved single-electron counting in a graphene quantum dot

Tu-eP116 **J. Guettinger[1], C. Stampfer[1], F. Libisch[2], T. Frey[1], J. Burgdoerfer[2], T. Ihn[1], K. Ensslin[1]** (*[1]Solid State Physics Laboratory, ETH Zurich, Schafmattstrasse 16, 8093 Zurich, Switzerland, [2]Institute for Theoretical Physics, Vienna University of Technology, Wiedner Hauptstrasse 8-10/136, 1040 Vienna, Austria*)

Electron-hole crossover in graphene quantum dots

Tu-eP117 **C. Ojeda, M. Ferrier, S. Gueron, H. Bouchiat** (*Laboratoire de physique des solides,CNRS UMR 8502, Orsay University, Universite Paris sud 91405, France*)

Tuning the proximity effect in a superconductor-graphene-superconductor junction

Tu-eP118 **T. Tanamoto[1], K. Maruyama[2], Y.X. Liu[2], X. Hu[3], F. Nori[2,4]** (*[1]Corporate R and D center, Toshiba Corporation, Saiwai-ku, Kawasaki 212-8582, Japan, [2]Advanced Science Institute, The Institute of Physical and Chemical Research (RIKEN), Wako-shi, Saitama 351-0198, Japan, [3]Department of Physics, University at Buffalo, SUNY, Buffalo, New York 14260-1500,USA, [4]Physics Department, Center for Theoretical Physics, Center for the Study of Complex Systems, The University of Michigan, Ann Arbor, Michigan 48109-1040, USA*)

Efficient purification protocols using iSWAP gates in solid-state qubits

Tu-eP119 **A. . Cantone[1], M. . Buitelaar[1], S. . Chorley[1], C. . Smith[1], J. Fransson[3], J. Warner[2], A. A. . Watt[2], K. Porfyrakis[2], G. A. . Briggs[2]** (*[1]Department of Physics, Cavendish Laboratory, Cambridge University, Cavendish Laboratory, J.J Thomson Avenue CB3 0HE, UK, [2]Clarendon Laboratory, Oxford University, Parks Road, OX1 3PH, UK, [3]Department of Physics and Material Science, Uppsala University, Uppsala, SE-751 05, Sweden*)

Electronic transport characterization of Sc@C_{82} single walled carbon nanotube peapods

Tu-eP120 **L. R. Schreiber[1], T. Meunier[1], V. Calado[1], F. R. Braakman[1], W. Wegscheider[2], L. M. K. Vandersypen[1]** (*[1]Kavli Institute of NanoScience, Delft University of Technology, Lorentzweg 1, Delft 2628 CJ, The Netherlands, [2]Institute for Experimental and Applied Physics, University of Regensburg, Universitaetsstr. 31, 93040 Regensburg, Germany*)

Two-electron spin manipulation by photon assisted tunneling

Tu-eP121 **T. Takakura[1], M. Pioro-Ladrière[2], T. Obata[2], Y. -S. Shin[2], R. Brunner[2], K. Yoshida[2], T. Taniyama[3,4], S. Tarucha[1,2]** (*[1]QPEC and Department of Applied Physics, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo , 113-8656, Japan, [2]Quantum Spin Information Project, ICORP, Japan Science and Technology Agency, Atsugi-shi, Kanagawa, 243-0198, Japan, [3]Material and Structures Laboratory, Tokyo Institute of Technology, 4259 Nagatsuta, Yokohama, 226-8503, Japan, [4]PRESTO, Japan Science and Technology Agency, 4-1-8 Honcho Kawaguchi, Saitama, 332-0012, Japan*)

Triple quantum dots with micro-magnets for implementing three spin qubits

Tu-eP122 **K. D. Petersson, P. Atkinson, D. Anderson, G. A. C. Jones, D. A. Ritchie, C. G. Smith** (*Cavendish Laboratory, JJ Thomson Avenue, Cambridge CB3 0HE, United Kingdom*)

Semiconductor qubit readout using a resonant circuit

Tu-eP123 **J. Sailer[1], V. Lang[1], G. Abstreiter[1], K. M. Itoh[2], E. E. Haller[3,4], S. Ludwig[5], D. Bougeard[1]** (*[1]Walter Schottky Institut, Technische Universität München, Am Coulombwall 3, 85748 Garching, Germany, [2]Department of Applied Physics and Physico-Informatics, Keio University, 3-14-1, Hiyoshi, Kohoku-ku, Yokohama 223-8522, Japan, [3]Lawrence Berkeley National Laboratory, Materials Sciences Division, Berkeley, CA 94720-8197, USA, [4]Department of Materials Science and Engineering, University of California at Berkeley, Berkeley, CA 94720-1760, USA, [5]Fakultät für Physik and Center for NanoScience, Ludwig-Maximilians-Universität München, Geschwister-Scholl-Platz 1, 80539 München, Germany*)

Nuclear spin engineering and top-gating of 2DES in Si/SiGe

Tu-eP124 **C. H. Lee[1], W. S. Su[1,2], R. B. Chen[3], M. F. Lin[1]** (*[1]Department of Physics, National Cheng Kung University, 1 Ta-Hsueh Road. Tainan 70101, Taiwan, [2]Center for General Education, Tainan University of Technology, 529 Jhongjheng Rd., Yongkang, Tainan 71002, Taiwan , [3]Center of General Education, National Kaohsiung Marine University, 142 Haijhuan Rd., Nanzih District, Kaohsiung City 81143, Taiwan*)

Low-Energy Electronic Properties of Ribbon-Graphene Hybrid Systems

Tu-eP125 **Y. H. Ho[1,2], Y. H. Chiu[2], J. M. Lu[3], M. F. Lin[2]** (*[1]Department of Physics, National Sun Yat-Sen University, No. 70, Lienhai Road, Kaohsiung City 80424, Taiwan, [2]Department of Physics, National Cheng Kung University, No. 1, Dasyue Road., Tainan City 70101, Taiwan, [3]National Center for High-Performance Computing, No. 28, Nanke 3rd Road., Sinshih Township, Tainan County 74147, Taiwan*)

Low-energy electronic structures of nanotube-graphene hybrid carbon systems

Tu-eP126 **Chidur. Watanabe**[1], **Yoshiyuk. Ono**[2] (*[1]Information Technology Education Center, Tokai University, Hiratsuka, Kanagawa, Japan, [2]Department of Physics, Toho University, 2-2-1 Miyama, Funabashi, Chiba 2748510, Japan*)

Phonon softening in Peierls transition in an anisotropic triangular lattice

Tu-eP127 **Sungyou. Choi**[1], **Bong-Ju. Kim**[1], **Yon. Woo. Lee**[2], **Jeongyon. Choi**[1], **Hyun-Ta. Kim**[1] (*[1]IT-Convergence and Components Lab., Electronics and Tele-Communications Research Institute (ETRI), Daejeon 305-350, Korea, [2]School of Electrical and Control Engineering, Pukyong National University, Busan 608-739, Korea*)

Abrupt current jump of epitaxial p-type GaAs thin film

Tu-eP129 **M. Abbarchi**[1,2], **T. Kuroda**[2], **C. Mastrandrea**[1], **A. Vinattieri**[1], **S. Sanguinetti**[3], **T. Mano**[2], **N. Koguchi**[3], **K. Sakoda**[2], **M. Gurioli**[1] (*[1]Physics department University of Firenze, Via Sansone 1 50019 , ITALY, [2]National Institute for Materials Science, 1-1 Namiki, Tsukuba 305-0044, Japan, [3]Dipartimento di Scienza dei Materiali, CNISM, Universit'a di Milano-Bicocca, Via Cozzi 53, 20125 Milano, Italy*)

Poissonian excitonic population of single QDs

Tu-eP130 **R.Brunner**[1,2], **R. Akis**[3], **Ada. Burke**[3], **R. Meisels**[2], **F. Kuchar**[2], **D. K. Ferry**[3] (*[1]Quantum Spin Information Project, ICORP, JST, Atsugi-shi, Kanagawa, 243-0198, Japan, [2]Institute of Physics, University of Leoben, Franz-Josef Strasse 18, A-8700 Leoben, Austria, [3]Dept. of Electrical Engineering and Center for Solid State Electronics Research ,Arizona State University, Tempe, Arizona 85287,USA*)

Indication for Quantum Darwinism in Electron Billiards

Tu-eP131 **N. Aoki**[1], **A. M. Burke**[2], **C. R. d. Cunha**[3], **R. Akis**[2], **D. K. Ferry**[2], **Y. Ochiai**[1] (*[1]Graduate School of Advanced Integration Science, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522, Japan, [2]Department of Electrical Engineering and Center for Solid State Electronics Research, Arizona State University, Tempe, Arizona 85287-5706, USA, [3]Department of Electrical Engineering, Universidade Federal do Rio Grande do Sul, Porto Alegre, Rio Grande do Sul 90035-190, Brazil*)

Scanning gate imaging of quantum point contact

Tu-eP132 **M.V.Entin, L. I. Magarill** (*Institute of Semiconductor Physics, Siberian Branch, Russian Academy of Sciences, Novosibirsk, Russia, 13, prospekt Lavrent,eva, Novosibirsk, Russia*)

Photomagnetic effect caused by spin-orbit interaction in 2D system

Tu-eP134 **S. Sakiroglu**[1], **U. Erkarslan**[2], **G. Oylumluoglu**[2], **A. Siddiki**[2], **I. Sokmen**[1] (*[1]Physics Department, Dokuz Eylül University, Physics Department, Faculty of Arts and Sciences, Dokuz Eylül University, Izmir 35160, Turkey, [2]Physics Department, Mugla University, Physics Department, Faculty of Arts and Sciences, Mugla University, Mugla 48170, Turkey*)

Microscopic theory of the activated behavior of the quantized Hall effect

Wednesday July 22nd

Session E5 (Main Hall) 9:00 – 10:30 Quantum Hall effect II

E5a 9:00 – 9:30 **Chetan Nayak** (Invited) (*Microsoft Station Q and UC Santa Barbara, USA*)

Topological Quantum Computation in the Quantum Hall Regime

E5b 9:30 – 9:45 **M. A. Zudov**[1], **A. T. Hatke**[1], **L. N. Pfeiffer**[2], **K. W. West**[2] ([1]*School of Physics and Astronomy, University of Minnesota, Minneapolis, Minnesota 55455, USA,* [2]*Bell Labs, Alcatel-Lucent, Murray Hill, New Jersey 07974, USA*)

Role of $e-e$ interactions in magnetoresistance oscillations in 2DES

E5c 9:45 – 10:00 **O. Dial**[1], **R. Ashoori**[1], **L. Pfeiffer**[2], **K. West**[2] ([1]*Massachusetts Institute of Technology, Cambridge, United States,* [2]*Alcatel-Lucent Bell Laboratories, Murray Hill, United States*)

Tunneling Spectroscopy of Composite Quasiparticles in the Fractional Quantum Hall Effect

E5d 10:00 – 10:15 **A. Fukuda**[1], **T. Sekikawa**[2], **K. Iwata**[2], **Y. Ogasawara**[2], **T. Arai**[3], **Z. F. Ezawa**[4], **A. Sawada**[3] ([1]*Department of Physics, Hyogo College of Medicine, Mukogawacho 1-1, Nishinomiya, Hyogo 663-8501, Japan,* [2]*Graduate School of Science, Department of Physics, Kyoto University, Kyoto 606-8502, Japan,* [3]*Research Center for Low Temperature and Materials Sciences, Kyoto University, Kyoto 606-8501, Japan,* [4]*Theoretical Physics Laboratory, RIKEN, Saitama 351-0198, Japan*)

Activation Energy Gap of the Layer-Imbalanced Bilayer ν=1/3 Quantum Hall States

E5e 10:15 – 10:30 **T. Kawarabayashi**[1], **Y. Hatsugai**[2], **H. Aoki**[3] ([1]*Department of Physics, Toho University, Miyama, Funabashi, 274-8510, Japan,* [2]*Institute of Physics, University of Tsukuba, Tennodai, Tsukuba, 305-8571, Japan ,* [3]*Department of Physics, University of Tokyo, Hongo, Tokyo 113-0033, Japan*)

Landau level broadening in graphene with long-range disorder – Robustness of the n=0 level –

10:30 – 11:00 **Coffee Break**

Session Plenary 3,4 (Main Hall) 11:00 – 12:30

PL3 11:00 – 11:45 **Andre Geim** (*Centre for Mesoscience & Nanotechnology, University of Manchester, Oxford Road, Manchester M13 9PL, UK*)

Outlook over graphene flatland

PL4 11:45 – 12:30 **Leaven M.K. Vandersypen** (*Kavli Institute of Nanoscience, Delft University of Technology, Delft, the Netherlands*)

Coherence and control of single electron spins in quantum dots

12:30 – **Optional Excursion**

Thursday July 23rd

Session E6 (Main Hall) 9:00 – 11:15 **Graphene**

E6a 9:00 – 9:30 **Michael Fuhrer** (Invited) (*University of Maryland, USA*)
Charge Transport in Graphene

E6b 9:30 – 9:45 **S. Das Sarma, E. H. Hwang** (*Department of Physics, University of Maryland, College Park, Maryland 20723, U.S.A.*)
Screening and its consequences in graphene

E6c 9:45 – 10:00 **A. K. Savchenko, F. V. Tikhonenko, A. A. Kozikov, R. V. Gorbachev** (*University of Exeter, School of Physics, Stocker Rd, Exeter EX4 4QL, UK*)
Weak Localisation and Anti-Localisation in Graphene

E6d 10:00 – 10:15 **M. Orlita, C. Faugeras, J. M. Schneider, G. Martinez, D. K. Maude, M. Potemski** (*National High Magnetic Field Laboratory, Grenoble, CNRS, 25 rue des Martyrs, BP166, Grenoble Cedex 9 38042, France*)
Graphite from the viewpoint of Landau level spectroscopy: An effective graphene bilayer and monolayer

E6e 10:15 – 10:30 **M. Koshino, T. Ando** (*Department of Physics, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8551, Japan*)
Parallel and perpendicular optical absorptions in bilayer graphene

10:30 – 11:00 **Coffee Break**

E6f 11:00 – 11:15 **S. Russo[1,2], M. F. Craciun[1], M. Yamamoto[1], J. B. Oostinga[2,3], A. F. Morpurgo[3], S. Tarucha[1,4]** ([1]*Department of Applied Physics, The University of Tokyo, 7-3-1,Hongo,Bunkyo-ku,Tokyo 113-8656, Japan,* [2]*Kavli Institute of Nanoscience, Delft University of Technology, Lorentzweg 1, 2628 CJ Delft, The Netherlands,* [3]*Department of Condensed Matter Physics, University of Geneva, quai Ernest-Ansermet 24, CH-1211 Geneva 4, Switzerland,* [4]*Quantum Spin Information Project, ICORP, Japan Science and Technology Agency, Atsugi-shi, 243-0198, Japan*)
Trilayer graphene: a semimetal with gate-tunable band overlap

Session E7 (Main Hall) 11:15 – 12:30

Coherent manipulation of quantum mechanical freedom

E7a 11:15 – 11:45 **Y. Ohno[1], Y. Kondo[1], M. Ono[1], S. Matsuzaka[1,2], H. Sanada[1], K. Morita[2,1], H. Ohno[1,2]** (Invited) ([1]*Laboratory for Nanoelectronics and Spintronics, Research Institute of Electrical Communication, Tohoku University, 2-1-1 Katahira, Aoba-ku, Sendai 980-8577, Japan,* [2]*ERATO Semiconductor Spintronics Project, Exploratory Research for Advanced Technology, Japan Science and Technology Agency, Sanban-cho 5, Chiyouda-ku, Tokyo 102-0075, Japan*)
Multi pulse operation and optical detection of nuclear spin coherence in a quantum well

E7b 11:45 – 12:00 **H. Kiyama[1], T. Fujita[1], G. Allison[1], T. Asayama[1,2], A. Pioda[1], A. Oiwa[1,3], S. Tarucha[1,3,4]** (*[1]Department of Applied Physics, The University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113-8656, Japan, [2]Advanced Materials Laboratories, SONY Corporation, 4-16-1, Okata, Atsugi-shi, Kanagawa, 243-0021, Japan, [3]Quantum Spin Information Project, ICORP, JST, 3-1, MOR3-1, Morinosato-Wakamiya, Atsugi-shi, Kanagawa, 243-0198, Japan, [4]Institute for Nano Quantum Information Electronics, The University of Tokyo, 4-6-1, Komaba, Meguro-ku, Tokyo 153-8505, Japan*)

Detection of optically injected single electron charge and spin in a quantum dot using a quantum point contact

E7c 12:00 – 12:30 **Hideo Kosaka[1,2], Hideki Shigyou[1], Takahiro Inagaki[1], Yoshiaki Rikitake[3,2], Hiroshi Imamura[4,2], Yasuyoshi Mitsumori[1,2], Keiichi Edamatsu[1]** (Invited) (*[1]Research Institute of Electrical Communication, Tohoku University, Sendai 980-8577, Japan, [2]CREST-JST, Saitama 322-0012, Japan, [3]Department of Information Engineering, Sendai National College of Technology, Sendai 989-3128, Japan, [4]Nanotechnology Research Institute, AIST, Tsukuba 305-8568, Japan*)

Coherent spin injection and spin state tomography by light in a semiconductor quantum well

12:30 – 14:00 **Lunch Break**

Session E8 (Main Hall) 14:00 – 16:00 Electron-environment interaction

E8a 14:00 – 14:30 **T. Ihn, U. Gasser, S. Gustavsson, T. Müller, B. Küng, T. Choi, M. Studer, R. Leturcq, I. Shorubalko, K. Ensslin** (*Solid State Physics Laboratory, ETH Zurich, CH-8093 Zurich, Switzerland*)

Time-resolved charge detection and back-action in quantum circuits

E8b 14:30 – 14:45 **R. Leturcq[1,2], C. Stampfer[1,3], K. Inderbitzin[1], L. Durrer[3], C. Hierold[3], E. Mariani[4], M. G. Schultz[4], F. von Oppen[4], K. Ensslin[1]** (*[1]Laboratory for Solid State Physics, ETH Zurich, 8093 Zurich, Switzerland, [2]IEMN, CNRS-UMR 8520, Department ISEN, Cit Scientifique, Avenue Poincar BP 60069, 59652 Villeneuve d'Ascq, France, [3]Micro and Nanosystems, Department of Mechanical and Process Engineering, ETH Zurich, 8092 Zurich, Switzerland, [4]Institut für Theoretische Physik, Freie Universitt Berlin, Arnimallee 14, 14195 Berlin, Germany*)

Franck-Condon blockade in suspended carbon nanotube quantum dots

E8c 14:45 – 15:00 **F. Sfigakis[1], S. Sarkozy[2], K. Das Gupta[1], I. Farrer[1], D.A. Ritchie[1], M. Pepper[1]** (*[1]Cavendish Laboratory, University of Cambridge, J.J. Thomson Avenue, Cambridge CB3 0HE, United Kingdom, [2]Northrop Grumman Aerospace Systems, One space park, Redondo beach, California 90278, USA*)

Intrinsic nature of the zero-bias anomaly (ZBA) in quantum point contacts

E8d 15:00 – 15:15 **R. P. G. McNeil, M. Kataoka, C. J. B. Ford, C. H. W. Barnes, D. Anderson, G. A. C. Jones, I. Farrer, D. A. Ritchie** (*Cavendish Laboratory, University of Cambridge, Cavendish Laboratory, JJ Thomson Av., Cambridge CB3 0HE, UK*)

Electron transfer between distant quantum dots by surface acoustic waves

E8e 15:15 – 15:30 **C. Mora[1,2], T. Delattre[1,2], C. Feuillet-Palma[1,2], L.G. Herrmann[1,2], P. Morfin[1,2], J.-M. Berroir[1,2], G. Fève[1,2], B. Plaçais[1,2], D.C. Glattli[1,2,3], M.-S. Choi[4], T. Kontos[1,2]** ([1]*Ecole Normale Supérieure, Laboratoire Pierre Aigrain, 24, rue Lhomond, 75231 Paris Cedex 05,* [2]*CNRS UMR 8551, Laboratoire associé aux universités Pierre et Marie Curie et Denis Diderot, France,* [3]*Service de physique de l'état Condensé, CEA, 91192 Gif-sur-Yvette, France,* [4]*Department of Physics, Korea University, Seoul 136-713*)

Noise in Carbon Nanotubes in the Kondo regime

E8f 15:30 – 15:45 **T. Fujii** (*Institute for Solid State Physics, University of Tokyo, Kashiwanoha 5-1-5, Kashiwa, Chiba, Japan*)

Effect of Coulomb interaction for shot noise in a quantum dot

E8g 15:45 – 16:00 **K. Hitachi[1], A. Oiwa[2], S. Tarucha[2]** ([1]*Department of Physics, University of Tokyo, Hongo, Bunkyo-ku, Japan,* [2]*ICORP-JST and Department of Applied Physics, University of Tokyo, Hongo, Bunkyo-ku, Japan*)

Lifting of Coulomb blockade and Kondo effect in a quantum dot by highly-biased nearby a quantum point contact

Poster Session Th-eP (Meeting Room 501, 502) 16:00–18:00

Th-eP1 **D. G. Austing[1,2], C. Payette[1,2], G. Yu[1], J. A. Gupta[1]** ([1]*Institute for Microstructural Sciences M50, NRC, Ottawa, Ontario K1A 0R6, Canada,* [2]*Department of Physics, McGill University, Montreal, Quebec H3A 2T8, Canada*)

Hysteretic funnel structures in vertical quantum dot molecules

Th-eP2 **J. Kunc[1,2], P. Plochocka[1], K. Kowalik[1], F. J. Teran[1], R. Grill[2], D. K. Maude[1], M. Potemski[1], T. Wojtowicz[3], G. Karczewski[3]** ([1]*1, Laboratoire National des Champs Magntiques Intenses, Grenoble High Magnetic Field Laboratory, CNRS, 25 avenue des Martyrs, 38042 Grenoble, France,* [2]*2, Institute of Physics, Charles University, Prague, Czech Republic,* [3]*3, IFPAN, Warsaw, Poland*)

Quantum Hall effect in CdTe-based quantum wells

Th-eP3 **Y. Yoon[1], M.-G. Kang[1], T. Morimoto[2], L. Mourokh[3], N. Aoki[4], J. L. Reno[5], J. P. Bird[1,4], Y. Ochiai[4]** ([1]*Department of Electrical Engineering, University at Buffalo, the State University of New York, Buffalo, NY 14260-1920, USA,* [2]*Advanced Device Laboratory, RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan,* [3]*Department of Physics, Queens College of CUNY, 65-30 Kissena Blvd., Flushing, NY 11367, USA,* [4]*Graduate School of Advanced Integration Science, Chiba University, 1-33 Yayoi-cho, Inage-ku, Chiba 263-8522, Japan,* [5]*CINT Science Department, Sandia National Laboratories, P.O. Box 5800, Albuquerque, NM 87185-1303*)

Detector Backaction on the Self-Consistent Bound State in Quantum Point Contacts

Th-eP4 **H. Chung[1], M. H. Lee[1], C. C. Chang[1], Y. C. Huang[2], M. F. Lin[1]** ([1]*Department of Physics, National Cheng Kung University, 1 Ta-Hsueh Road, Tainan, Taiwan 70101, Taiwan,* [2]*Center for General Education, Kao Yuan University, No.1821, Jhongshan Rd., Lujhu Township, Kaohsiung County 821, Taiwan*)

Quasi-Landau levels in bilayer zigzag graphene nanoribbons

Th-eP5 **R.B. Chen** (*Center of General Studies, National Kaohsiung Marine University, Kaohsiung 81143, Taiwan, No. 142, Haijhuan Rd., Nanzih District, Kaohsiung City 81143, Taiwan (R.O.C.)*)

Optical excitations of finite double-walled carbon nanotubes under electric field

Th-eP6 **A.D.Guclu, Pawel Potasz, Oleksandr Voznyy, Marek Korkusinski, Pawel Hawrylak** (*Institute for Microstructural Sciences, National Research Council Canada, bldg M-50, 1200 Montreal Rd, Ottawa, K1A0R6, ON Canada*)

Magnetism and Correlations of Fractionally Filled Zero-energy States in Triangular Graphene Quantum Dots

Th-eP7 **A.V. Smorodin, V. A. Nikolaenko, S. S. Sokolov** (*B.Verkin Institute for Low Temperature Physuics and Engineering of the National Academy of Sciences of Ukraine, Ukraine*)

TRANSPORT OF Q1D SURFACE ELECTRONS OVER LIQUID ELIUM IN DENSE VAPOR

Th-eP8 **K. Nakamura, T. Akiyama , T. Ito** (*Department of Physics Engineering, Mie University, 1577 Kurima-Machiya, Tsu, Mie 5148507, Japan*)

Magnetic anisotropy in single metal-phthalocyanine molecules

Th-eP9 **C. H. Ahn, Y. S. Bae, D. C. Kim, Y. Y. Kim, S. K. Mohanta, H. K. Cho** (*School of Advanced Materials Science and Engineering, Sungkyunkwan University, 300 Cheoncheon-dong, Jangan-gu, Suwon, Gyeonggi-do, 440-746, Korea*)

ZnO nanopencils synthesized by thermal evaporation with controlled working pressure

Th-eP10 **Vassilios Vargiamidis[1], Vassilios Fessatidis[2], Makoto Sawamura[3], Norman J. M. Horing[4]** ([1]*Department of Physics, Aristotle University, GR-54124 Thessaloniki, Greece,* [2]*Department of Physics, Fordham University, Bronx, New York 10458, USA,* [3]*MANA, National Institute for Materials Science, Namiki, Tsukuba, Ibaraki, 305-0044, Japan,* [4]*Department of Physics and Engineering Physics, Stevens Institute of Technology, Hoboken, New Jersey 07030, USA*)

Electric field effect on the Fano resonance in quantum wires

Th-eP11 **D. Takahashi, H. Ikegami, K. Kono** (*Low Temperature Physics Lab., RIKEN, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan*)

Nonlinear transport of two-dimensional positive ions below surface of superfluid ^{4}He

Th-eP12 **A. Castro[1], E. Räsänen[2], C. A. Rozzi[3]** ([1]*Institut für Theoretische Physik and European Theoretical Spectroscopy Facility, Freie Universität Berlin, Arnimallee 14, D-14195 Berlin, Germany,* [2]*Nanoscience Center, Department of Physics University of Jyväskylä, FI-40014 Jyväskylä, Finland,* [3]*CNR-INFM National Research Center S3, via Campi 213a, I-41100 Modena, Italy*)

Exact Coulomb cutoff technique in two dimensions

Th-eP13 **S. J. Angus**[1], **A. J. Ferguson**[2] (*[1]Department of Physics, University of Melbourne, School of Physics (David Caro Building), The University of Melbourne, VIC 3010, Australia, [2]Department of Physics, Cavendish Laboratory, JJ Thomson Ave, Cambridge CB3 0HE, U. K.*)

Single electron detection using the silicon radio-frequency single electron transistor (rf-SET)

Th-eP14 **C. H. Wen**[1], **J. H. Hsiao**[1], **T. M. Hong**[1], **K. T. Lin**[1], **J. C. Chen**[1], **T. Ueda**[2], **S. Komiyama**[2] (*[1]Department of Physics, National Tsing Hua University, Hsinchu 30043, Taiwan, Republic of China, [2]Department of Basic Science, University of Tokyo, Komaba 3-8-1, Meguro-ku, Tokyo 1538902, Japan*)

Resonance conductance in a quantum point contact with a tunable barrier potential

Th-eP15 **H. Ikegami, H. Akimoto, K. Kono** (*RIKEN, Wako, Saitama, Japan*)

Crystallization of electrons on liquid helium in channel geometry

Th-eP16 **Fernando Sanchez , V. Sanchez** (*Departamento de Fisica, Facultad de Ciencias, Universidad Nacional Autonoma de Mexico, Apartado Postal 70-542 04510, Mexico*)

Renormalization approach to electrical conductance of two-dimensional aperiodic lattices

Th-eP17 **G. M. Minkov**[1,2], **A. A .Sherstobitov**[1,2], **A. V. Germanenko**[1,2], **O. E. Rut**[1,2] (*[1]Institute of Metal Physics RAS, 620219 Ekaterinburg, Russia, [2]Institute of Physics and Applied Mathematics, Ural State University, 620083 Ekaterinburg, Russia*)

Renormalization of electron-electron interaction at conductivity decrease in two-dimensional

Th-eP18 **U. Wurstbauer**[1], **D. Weiss**[2], **D. Schuh**[2], **W. Wegscheider**[3,2] (*[1]Institut of Applied Physics, University of Hamburg, Jungiusstraße 9, D-20355 Hamburg D-20355, Germany, [2]Institute for Experimental and Applied Physics, University of Regensburg, Universitätsstraße 31, 93040 Regensburg, Germany, [3]Solid State Physics Laboratory, ETH Zurich, Schafmattstr. 16, 8093 Zürich , Switzerland*)

From weak to strong localization in a ferromagnetic high mobility 2DHG

Th-eP19 **S. N. Takeda**[1], **A. Kuwako**[1], **M. Morita**[1], **H. Daimon**[1], **M. Yoshimaru**[2], **T. Imamura**[2] (*[1]Graduate School of Materials Science, Nara Institute of Science and Technology, 8916-5, Takayama-cho, Ikoma-shi, Nara 630-0192, Japan, [2]Semiconductor Technology Academic Research Center (STARC), 3-17-2, Shin Yokohama,Kohoku-ku,Yokohama 222-0033 Japan*)

In-plane anisotropy of hole subbands in Si p-type inversion layers

Th-eP20 **T. Mochizuki, R. Masutomi, T. Okamoto** (*Depertment of Physics, Faculty of Science, University of Tokyo, Tokyo, Japan*)

Hysteresis in magnetoresistance of InAs surface inversion layers covered with submonolayer of Fe films

Th-eP21 **A. Tsukazaki[1,2], M. Nakano[1], S. Akasaka[3], K. Nakahara[3], A. Kamisawa[3], A. Ohtomo[1], M. Kawasaki[1,4,5]** (*[1]Institute for Materials Research, Tohoku University, 2-1-1 Katahira, Aoba, Sendai 980-8577, Japan, [2]PRESTO, Japan Science and Technology Agency, Tokyo, Japan, [3]Interdisciplinary Technology RandD Center, ROHM Co. Ltd., Kyoto, Japan, [4]WPI Advanced Institute for Materials Research, Tohoku University, 2-1-1 Katahira, Aoba, Sendai 980-8577, Japan, [5]CREST, Japan Science and Technology Agency, Tokyo, Japan*)

Transistor operation at MgZnO/ZnO interface by Schottky gating with conducting polymer

Th-eP22 **S. Chen[1], C. Liu[1], A. Eliseev[2], K. Napolsky[2]** (*[1]Department of Materials Science and Engineering, National Cheng-Kung University, No.1, University Road, Tainan, Taiwan, [2]Department of Materials Science and Engineering, National Cheng-Kung University, MSU, GSP-3, Leninskiye Gory, Moscow, 119899*)

Synthesis and Characterization of Ni Nanowires by Porous Anodic Alumina Oxide Templates

Th-eP23 **Sanjeev Kumar[1], Young-Gyo Seo[1], Gil-Ho Kim[2]** (*[1]Department of Electronic and Electrical Engineering and Sungkyunkwan University, [2]Advanced Institute of Nanotechnology, Sungkyunkwan University, Suwon 440-746, Korea*)

Photoconductivity characteristics of ZnO nanoparticles assembled in nanogap electrodes for portable ultraviolet photodetector applications

Th-eP24 **C. Eckhardt, W. Brezna, J. Silvano, O. Bethge, E. Bertagnolli, J. Smoliner** (*Department of Solid State Electronics, Vienna University of Technology, Floragasse 7, 1040 Vienna, Austria, EU 1040, Austria*)

Tip Geometry Effects in Scanning Capacitance Microscopy on GaAs Schottky and MOS-Type Junctions

Th-eP25 **M. Sato[1], K. Miura[1], S. Sugawara[2], N. Tajima[3], Y. Nishio[1], K. Kajita[1], K. Murata[4]** (*[1]Department of Physics,Toho University, 2-2-1 Miyama,Funabashi,Chiba 2748510, Japan, [2]The Institute for solid Statephysics,Tokyo University, 5-1-5 Kashiwanoha,Kashiwa,Chiba 2778581, Japan, [3]RIKEN(The Institute of Physical and Chemical Research), 2-1 Hirosawa,Wako,Saitama 3510198, ,Japan, [4]Department of Material Science,Fac.Sci.,Osaka City University, 3-3-138 Sumiyoshi,Osaka 5588585, Japan*)

Interlayer Hall effect of Zero gap conductor

Th-eP27 **I. I Kaya[1], E. Karabudak[1], M. Hauser[2]** (*[1]Sabanci University, 34956 Istanbul, Turkey, [2]Max-Planck-Institute FKF, Stuttgart, Germany*)

Current counterflow due to hot electron injection in two dimensional

Th-eP28 **R. Shen[1], E. Kojima[1], R. Akimoto[2], S. Takeyama[1]** (*[1]Institute for Solid State Physics, University of Tokyo, 277-8581, Kashiwa, Japan, [2]AIST, Ultrafast Photonics Devices Laboratory, 305-8568, Ibaraki, Japan*)

Anisotropic exciton and charged exciton dichroic photoluminescence in undoped ZnSe/BeTe type-II quantum wells in magnetic fields

Th-eP29 **A. Bertoni[1], G. Cuoghi[1,2], G. Ferrari[1,3], G. Goldoni[1,2]** ([1]*S3 National Research Center, CNR-INFM , Via Campi 213/A Modena 41100, Italy,* [2]*Dipartimento di Fisica, Università di Modena e Reggio Emilia, Modena, Italy,* [3]*CNISM Unità di Ricerca di Modena, Modena, Italy*)

In search for the geometric potential of curved 2DEGs through coherent electron transport.

Th-eP30 **Srijit Goswami[1], Christoph Siegert[1], Arindam Ghosh[2], Michael Pepper[1], Ian Farrer [1], David A. Ritchie[1]** ([1]*Cavendish Laboratory, University of Cambridge, J.J. Thomson Avenue, Cambridge CB3 0HE, United Kingdom,* [2]*Department of Physics, Indian Institute of Science, Bangalore 560 012, India*)

Zero-field colossal thermopower in mesoscopic two-dimensional electron systems

Th-eP31 **A. Harju, E. Tölö** (*Department of Applied Physics and Helsinki Institute of Physics, Helsinki University of Technology, P.O. Box 4100, 02015 Helsinki University of Technology , Finland*)

Quantum dots around ν=5/2

Th-eP32 **N. Kim[1], M. K. Li[2], T. W. Kang[2]** ([1]*Dept. of Physics, Soongsil University, Dongjak-ku Sangdo-dong, Seoul 156-743, Korea,* [2]*Quantum-Functional Semiconductor Research Center, Dongguk University, Seoul 100-715, Korea*)

Spin selector by hybrid triple barrier resonant tunneling diode

Th-eP33 **B. Hong[1], L. Choi[1], K. Song[1], S. Hwang[1], D. Ahn[2], K. Cho[3], K. Yeo[3], D. Kim[3], G. Jin[3], D. Park[3]** ([1]*Research Center for Time domain Nano-functional Devices and School of Electrical Engineering, Korea University, 5-1 Anam, Sungbuk, Seoul 136-701, Korea , Korea,* [2]*Institute of Quantum Information Processing and Systems, Univ. of Seoul, Dongdaemun, Jeonnong, Seoul 130-743, Korea,* [3]*Semiconductor RandD Center, Samsung Electronics Co., Hwaseong-si Gyeonggi-do, 445-701, Korea*)

Few hole quantum dot characteristics of gate-all-around PMOS silicon nanowire field effect transistors

Th-eP34 **L. Gaudreau[1,2], S. Studenikin[1], G. Granger[1], J. Kycia[3], P. Mason[3], A. Kam[1], C.Y. Hsieh[1], R. Cheriton[1], M. Korkusinski[1], P.Hawrylak[1], A. Sachrajda[1]** ([1] *Institute for Microstructural Sciences, National Research Council, 1200 Montreal Rd. Bldg. M-50, Ottawa, Ontario K1A 0R6, Canada,* [2]*Physics Department, University of Sherbrooke, Quebec, Canada, J1K 2R1, ,* [3]*Department of Physics and Astronomy, University of Waterloo, Waterloo, Canada, N2L 3G1,*)

Time resolved control of electron tunnelling times and single-shot spin readout in a quantum dot.

Th-eP35 **Y. Utsumi[1], D. S. Golubev[2], M. Marthaler[3], M. Hettler[2], G. Schön[2,3]** ([1]*Institute of Solid State Physics, University of Tokyo, Kashiwa, Chiba 277-8581, Japan,* [2]*Forschungszentrum Karlsruhe, Institut für Nanotechnologie, 76128 Karlsruhe, Germany,* [3]*Insitut für Theoretische Festkörperphysik, Universität Karlsruhe, 76021 Karlsruhe, Germany*)

Fluctuation Theorem in Single-Electron Counting

Th-eP36 **Y.-S. Shin[1], M. Pioro-Ladrière[1,2], T. Obata[1], Y. Tokura[1,3], R. Brunner[1], T. Kubo[1], K. Yoshida[1], S. Tarucha[1,4]** (*[1]Quantum Spin Information Project, ICORP, JST, Atsugi-shi, Kanagawa, 243-0198, Japan, [2]Departement de Physique, Universite de Sherbrooke, Sherbrooke, Quebec, J1K-2R1, Canada, [3]NTT Basic Research Laboratories, NTT Corporation, Atsugi-shi, Kanagawa, 243-0198, Japan, [4]Department of Applied Physics, University of Tokyo, Hongo, Bunkyo-ku, Tokyo, 113-8656, Japan*)

Single Electron Spin Addressing by Photon-assisted-tunneling for a Double Quantum Dot Integrated with a Micro-magnet

Th-eP37 **Michihisa Yamamoto[1,2], Christopher Bäuerle[1,3], Seigo Tarucha[1]** (*[1]Department of Applied Physics and QPEC, University of Tokyo, 3-4-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan, [2]ERATO-JST, Kawaguchi-shi, Saitama 332-0012, Japan, [3]Institut Neel, CNRS, 25, rue des Martyrs, BP 166, 8042 Grenoble, France , [4]ICORP-JST, Kawaguchi-shi, Saitama 332-0012, Japan*)

Full control of a flying charge qubit: detection and control of transmission phase shift by Ramsey interference

Th-eP38 **Y. Yamauchi[1], M. Hashisaka[1], S. Nakamura[1], K. Chida[1], S. Kasai[1], T. Ono[1], R. Leturcq[2], K. Ensslin[3], D. C. Driscoll[4], A. C. Gossard[4], K. Kobayashi[1]** (*[1]Institute for Chemical Research, Kyoto University, Gokasho Uji Kyoto 611-0011, Japan, [2]IEMN - CNRS, Cité Scientifique, Avenue Poincaré BP 60069, Villeneuve d'Ascq, France, [3]Solid State Physics Laboratory, ETH Zürich, CH-8093 Zürich, Switzerland, [4]Materials Department, University of California, Santa Barbara, California 93106, USA*)

Observation of the "lobe structure" in the ballistic interferometers

Th-eP39 **Y. Utsumi[1,1], K. Saito[1,1,2]** (*[1]Institute for Solid State Physics, University of Tokyo, Kashiwanoha 5-1-5, Kashiwa, Chiba 277-8581, Japan, [2]Graduate School of Science, University of Tokyo, Tokyo 113-0033, Japan, [3]CREST, Japan Science and Technology (JST), Saitama 332-0012, Japan*)

Fluctuation Theorem in a Quantum Dot Aharonov-Bohm Interferometer

Th-eP40 **S. Amaha[1], T. Hatano[1], H. Tamura[2], S. Teraoka[1], T. Kubo[1], Y. Tokura[1,2], D. G. Austing[3], S. Tarucha[1,4]** (*[1]Quantum Spin Information Project, ICORP, JST, Atsugi, Kanagawa 243-0198, Japan, [2]NTT Basic Research Laboratories, NTT Corporation, Atsugi, Kanagawa 243-0198, Japan, [3]Institute for Microstructural Sciences M50, NRC, Ottawa, Ontario K1A 0R6, Canada, [4]Department of Applied Physics, School of Engineering, University of Tokyo, Bunkyo, Tokyo 133-8656, Japan*)

Electronic states in laterally coupled vertical triple quantum dots

Th-eP42 **M. Pala[1], F. R Martins[1], B. Hackens[1], S. Baltazar[1], H. Sellier[1], S. Huant[1], V. Bayot[1]** (*[1]IMEP-LAHC (UMR 5130), INP, Grenoble, France, [2]DICE lab, Universit Catholique de Louvain, 3 place du levant, Louvain-la-Neuve 1348, Belgium, [3]Institut Nel, CNRS, and Universit Joseph Fourier, Grenoble, France*)

Scanning gate microscopy on quantum rings: in V ence of the magnetic field and of charged defects

Th-eP43 **R. Koushik[1], Matthias Baenninger[1,2], Arindam Ghosh[1], H.E.Beere[2], David A.Ritchie[2], Michael Pepper[2]** (*[1]Department of Physics, Indian Institute of Science, Bangalore-560012, Karnataka, India, [2]Cavendish Laboratory, University of Canbridge, J.J.Thomson Avenue, Cambridge, UK*)

Differential resistivity noise in low density mesoscopic two-dimensional electron system

Th-eP44 **J. R Prance, C. G. Smith, J. P. Griffiths, S. J. Chorley, D. Anderson, G. A. C. Jones, I. Farrer, D. A. Ritchie** (*Cavendish Laboratory, University of Cambridge, Semiconductor Physics group, Cavendish Laboratory, J. J. Thomson Ave., Cambridge CB3 0HE, UK*)
Cooling a 2D electron gas using quantum dots

Th-eP45 **B. Kueng[1], O. Pfaeffli[1], S. Gustavsson[1], T. Ihn[1], M. Reinwald[2], W. Wegscheider[1], K. Ensslin[1]** ([1]*Solid State Physics Laboratory, ETH Zurich, Zurich , Switzerland,* [2]*Institut fuer Experimentelle und Angewandte Physik, Universität Regensburg, Regensburg, Germany*)
Time-resolved charge detection with cross-correlation techniques

Th-eP46 **Y. F. Lai[1], Y. H. Su[1], C. P. Liu[1], Y. W. Yang[2], L. J. Fan[2]** ([1]*Department of Materials Science and Engineering and Center for Micro/nano Science and Technology, National Cheng Kung University, No.1, Dasyue Rd., East District, Tainan City 701, Taiwan (R.O.C.) , Taiwan,* [2]*National Synchrotron Radiation Research Center, 101 Hsin-Ann Road, Hsinchu, Taiwan 30077*)
Enhanced efficiency in natural dye-sensitized solar cells with surface plasmon resonance by incorporating Au nanoparticles

Th-eP47 **C. Yang, J. Kim, U. Sim, J. Lee, E. Yoon** (*Department of Materials Science and Engineering, Seoul National University, RM 105, Research Institute of Advanced Materials, Seoul National University, Gwanak-gu, Seoul 151-742, Republic of Korea*)
Competitive growth mechanisms of the InAs quantum dots on the $In_xGa_{1-x}As$ layer during the post growth interruption

Th-eP48 **Keun Wook Shin, Hyun-Woo Kim, Euijoon Yoon** (*Seoul National University, RM208 BN104 Shinlim9dong Gwankgu Seoul, South Korea , South Korea*)
The influences of the thickness of low temperature Ge layers on a two-step Ge growth on a Si(100) using UHV-CVD

Th-eP49 **R. Yoshii, M. Eto** (*Fuculty of Science and Technology, Keio University, 3-14-1 Hiyoshi, Kohoku-ku, Yokohama, Kanagawa 223852, Japan*)
Ring-size dependence of Kondo effect in quantum dot embedded in Aharonov-Bohm ring

Th-eP50 **S. Kirino, T. Fujii, K. Ueda** (*Institute for Solid State Physics, University of Tokyo, Kashiwanoha 5-1-5, Kashiwa, Chiba 277-8581, Japan*)
Time-dependent DMRG study on nonlinear transport through quantum dot

Th-eP52 **R. Sakano[1], S. Tarucha[1,2], N. Kawakami[3]** ([1]*Department of Applied Physics, University of Tokyo, 7-3-1, Hongo, Bunkyo, Tokyo 1130033, Japan,* [2]*ICORP JST, Kanagawa, Japan,* [3]*Department of Physics, Kyoto University, Kyoto, Japan*)
Enhanced thermoelectric power of single quantum dot systems at low temperatures: Exact solution analysis

Th-eP53 **Y. Hamamoto, T. Kato** (*Institute for Solid State Physics, University of Tokyo, Kashiwanoha 5-1-5, Kashiwa, Chiba 277-8581, Japan*)
Monte Carlo study of resonant tunneling in a Tomonaga-Luttinger liquid

Th-eP55 **Y. Fu[1], S. Lin[1], M. Tsai[1], H. Lin[2], C. Lin[2], S. Wang[2], S. Cheng[2], W. Chang[2]** (*[1]Department of Electronics Engineering, National Chiao Tung University, 1001 Ta-hsueh road, Hsinchu 300, Taiwan, [2]Department of Electrophysics, National Chiao Tung University, 1001 Ta-hsueh road, Hsinchu 300, Taiwan*)

Diamagnetic shift of exciton complexes in InAs quantum dots

Th-eP56 **Masao Arai[1], Yasuhiro Hatsugai[2]** (*[1]Computational Materials Science Center, National Institute for Materials Science, 1-1 Namiki, Tsukuba, Ibaraki 3050031, Japan, [2]Institute of Physics, University of Tsukuba, Tsukuba, Ibaraki, 3058571, Japan*)

Numerical study of quantum Hall effects in two-dimensional multi-band system: single- and multi-layer graphene

Th-eP57 **N. Shibata, K. Nomura** (*Department of Physics, Tohoku University, Aoba, Aoba-ku, Sendai 980-8578, Japan*)

Fractional quantum Hall states in single-layer and bilayer graphene

Th-eP58 **E. A. Henriksen[1], P. Cadden-Zimansky[2,3], Z. Jiang[4], L.-C. Tung[2], M. E. Schwartz[3], Y.-J. Wang[2], P. Kim[3], H. L. Stormer[3,5]** (*[1]California Institute of Technology, Pasadena, California, U.S.A., [2]National High Magnetic Field Laboratory, Tallahassee, Florida, U.S.A., [3]Columbia University, New York, New York, U.S.A., [4]Georgia Institute of Technology, Atlanta, Georgia, U.S.A., [5]Bell Labs, Murray Hill, New Jersey, U.S.A.*)

Cyclotron Resonance in Graphene

Th-eP59 **E. Cicek[1], A. I. Mese[1], D. Eksi[1], M. Ulas[1], A. Siddiki[2]** (*[1]Department of Physics, Faculty of Art and Science, Trakya University, Edirne 22030, Turkey, [2]Physics Department, Faculty of Arts and Science, Mugla University, Mugla-Kotekli 48170, Turkey*)

Spatial distribution of the incompressible strips at Aharonov-Bohm interferometer

Th-eP60 **N. Paradiso[1], S. Heun[1], S. Roddaro[1], L. N. Pfeiffer[2], K. W. West[2], F. Beltram[1]** (*[1]NEST, CNR-INFM and Scuola Normale Superiore, Piazza San Silvestro 12, Pisa 56127 , Italy, [2]Bell Laboratories, Alcatel-Lucent, Murray Hill, New Jersey 07974, USA*)

Selective control of edge channel trajectories by SGM

Th-eP61 **A. Helzel, L. V. Litvin, H. P. Tranitz, W. Wegscheider, C. Strunk** (*Institute for experimental and applied physics, Universitiy of Regensburg, Universitätsstr. 31, 93040 Regensburg , Germany*)

Finite bias visibility and phase in an electronic Mach-Zehnder interferometer

Th-eP62 **K. Slevin[1], T. Ohtsuki[2]** (*[1]Department of Physics, Graduate School of Science, Osaka University, 1-1 Machikaneyama, Toyonaka-shi, Osaka-fu 560-0043, Japan, [2]Department of Physics, Sophia University, Kioi-cho 7-1, Chiyoda-ku, 102-8554, Tokyo, Japan*)

Finite size scaling analysis of the Chalker-Coddington model

Th-eP64 **K. Oto[1], R. Inaba[1], T. Yamada[1], Y. Saisyu[1], T. Matsuda[1], K. Muro[1], Y. Hirayama[2,3], N. Kumada[4], H. Yamaguchi[4]** (*[1]Department of Physics, Graduate School of Science, Chiba University, 1-33 Yayoi, Inage, Chiba 263-8522, Japan, [2]Graduate School of Science, Tohoku University, Sendai, Miyagi 980-8577, Japan, [3]ERATO Nuclear Spin Electronics Project, Miyagi 980-8578, Japan, [4]NTT Basic Research Laboratories, NTT Corporation, Atsugi, Kanagawa 243-0198, Japan*)

Imaging of local filling factor in current flowing ν=1 quantum Hall state by scanning Kerr microscope

Th-eP65 **H. Kamata[1,2], T. Ota[1], K. Muraki[1], T. Fujisawa[2]** ([1]*NTT Basic Research Laboratories, 3-1 Morinosato-Wakamiya, Atsugi, Kanagawa 243-0198, Japan,* [2]*Research Center for Low-Temperature Physics, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro, Tokyo 152-8551, Japan*)

Voltage controlled group velocity of edge magnetoplasmon in the quantum Hall regime

Th-eP66 **K. Ikushima[1,2], D. Asaoka[3], S. Komiyama[3], T. Ueda[3], K. Hirakawa[4]** ([1]*Department of Applied Physics, Tokyo University of Agriculture and Technology, 2-24-16 Naka-cho, Koganei-shi, Tokyo 184-8588, Japan,* [2]*PRESTO, JST, 4-1-8 Honcho Kawaguchi, Saitama, Japan,* [3]*Department of Basic Science, University of Tokyo, Tokyo, Japan,* [4]*Institute of Industrial Science, University of Tokyo, Tokyo, Japan*)

Manipulating terahertz photons on a quantum Hall effect device

Th-eP67 **Ugur Erkarslan, Gorkem Oylumluoglu, Afif Siddiki** (*Department of Physics, Mugla University, Faculty of Arts and Sciences, Kotekli, Mugla, 48170, TURKEY*)

Edge to bulk transition of the IQHE at cleaved edge overgrown samples: an interaction based experimental proposal

Th-eP68 **G. Bilgec[1], H. Toffoli[2], A. Siddiki[3], I. Sokmen[1]** ([1]*Dokuz Eylül University, Physics Department, Dokuz Eylül University,Physics Department, Faculty of Arts and Sciences, Izmir 35100, Turkey,* [2]*Middle East Technical University, Physics Department, Middle East Technical University, Physics Department, Ankara, 06531, Turkey,* [3]*Mugla University, Physics Department, Mugla University, Physics Department, Faculty of Arts and Sciences, 48170-Kotekli, Mugla, Turkey*)

Calculation of odd integer quantized Hall plateaus due to exchange enhancement of Land g* factor under experimental conditions

Th-eP70 **K. Fujita, A. Endo, S. Katsumoto, Y. Iye** (*Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba 2778581, Japan*)

The measurement of diffusion thermopower in the quantum Hall systems

Th-eP71 **Y.Yoon, L.Tiemann, S. Schmult, M. Hauser, W. Dietsche, K. von Klitzing** (*Max-Planck-Institute for Solid State Physics, Heisenbergstr. 1 70569, Germany*)

Importance of interlayer tunneling in Quantum Hall Bilayers at ν_T= 1

Th-eP72 **K. Sasaki[1], R. Masutomi[1], K. Toyama[1], K. Sawano[2], Y. Shiraki[2], T. Okamoto[1]** ([1]*Department of Physics, University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan,* [2]*Research Center for Silicon Nano-Science, Musashi Institute of Technology, 8-15-1, Todoroki, Setagaya-ku, Tokyo 158-0082, Japan*)

Landau level crossing and pseudospin phase transitions in Si quantum wells

Th-eP73 **E. Vernek[1,2], N. Sandler[2], S. E. Ulloa[2]** ([1]*Instituto de Fsica, Universidade Federal de Uberlndia, Uberlndia, 38400-902, MG - Brazil,* [2]*Department of Physics and Astronomy, Ohio University, Athens, Ohio 45701, USA*)

Spin filtering in Kondo quantum dots and spin-orbit interaction

Th-eP74 **Y.H. Chen, C.G.Tang, Y. Liu, Z.G.Wang** (*Key Lab. of Semiconductor materials Science, Institute of Semiconductors, Chinese Academy of Sciences, P.O.Box.912, Beijing, P.R.China 100083, P.R.China*)

Anomalous circular photogalvanic effect in GaAs/AlGaAs two-dimensional electron gas

Th-eP75 **K. Hamaya[1,2,3], K. Shibata[1], K. Hirakawa[1,2,5], S. Ishida[6], Y. Arakawa[1,2,6], T. Machida[1,2,5]** (*[1]Institute of Industrial Science, University of Tokyo,, Tokyo, Japan, [2]Institute for Nano Quantum Information Electronics, University of Tokyo, Tokyo, Japan, [3]Department of Electronics, Kyushu University, Fukuoka, Japan, [4]Japan Science and Technology Agency, PRESTO, Kawaguchi, Japan, [5]Japan Science and Technology Agency, CREST, Kawaguchi, Japan, [6]Research Center for Advanced Science and Technology, University of Tokyo, Tokyo, Japan*)

Electron transport in a Semiconductor-Quantum-Dot Spin Diode

Th-eP77 **Y. Kunihashi[1], M. Kohda[1,2], J. Nitta[1]** (*[1]Department of Materials Science, Tohoku University, Sendai, Japan, [2] PRESTO Japan Science and Technology Agency, Saitama, Japan*)

Suppression of spin relaxation due to dimensional confinement and resonant spin-orbit interaction effect

Th-eP78 **S. Z. Denega[1], T. Last[1], J. Liu[1], A. Slachter[1], P. J. Rizo[1], B. J. van Wees[1], D. Reuter[2], A. D. Wieck[2], P. H. M. van Loosdrecht[1], C. H. van der Wal[1]** (*[1]Zernike Institute for Advanced Materials, University of Groningen, Nijenborgh 4, Groningen 9747AG, The Netherlands, [2]Laboratory for Solid State Physics, Ruhr-University Bochum, D-44780 Bochum, Germany*)

Anisotropy for spin dephasing in quasi-1D electron ensembles in a GaAs/AlGaAs heterostructure

Th-eP79 **M. Kawamura[1,2,3], M. Ono[1], Y. Hashimoto[4], S. Katsumoto[4,5], T. Machida[1,5]** (*[1]Institute of Industrial Science, University of Tokyo, 4-6-1 Komaba, Meguro, Japan, [2]RIKEN, 2-1 Hirosawa, Wako, Japan, [3]PRESTO, Japan Science and Technology Agency, 4-1-8 Kawaguchi, Japan, [4]Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Japan, [5]Institute for Nano Quantum Information Electronics, University of Tokyo, 4-6-1 Komaba, Meguro, Japan*)

Nuclear spin polarization in the breakdown regimes of integer and fractional quantum Hall states

Th-eP80 **K. Hosono, A. Takeuchi, G. Tatara** (*Department of Physics, Tokyo Metropolitan University, Minamiohsawa 1-1, Hachioji-shi,Tokyo 192-0397, JAPAN*)

Charge conservation in dynamic inverse spin Hall effect

Th-eP81 **M. Kawamura[1,2,3], T. Yamashita[1], H. Takahashi[1], S. Masubuchi[1], Y. Hashimoto[4], S. Katsumoto[4,5], T. Machida[1,5]** (*[1]Institute of Industrial Science, University of Tokyo, 4-6-1 Komaba, Meguro, Japan, [2]RIKEN, 2-1 Hirosawa, Wako, Japan, [3]PRESTO, Japan Science and Technology Agency, 4-1-8 Kawaguchi, Japan, [4]Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Japan, [5]Institute for Nano Quantum Information Electronics, University of Tokyo, 4-6-1 Komaba, Meguro, Japan*)

Strain-induced enhamcement of electric quadrupole splitting in resistively detected NMR spectrum in quantum Hall systems

Th-eP82 **Y. Tokura[1,2], T. Kubo[2], Y. -S. Shin[2], K. Ono[2,3], S. Tarucha[2,4]** (*[1]NTT Basic Research Laboratories, NTT Corporation, 3-1 Wakamiya, Morinosato, Atsugi 2430198, Japan, [2]Quantum Spin Information Project, ICORP, JST, 3-1 Wakamiya, Morinosato, Atsugi 2430198, Japan, [3]Low Temperature Physics Laboratory, RIKEN, Wako-shi, Saitama, 3510198, Japan, [4]Department of Applied Physics, University of Tokyo, Bunkyo-ku, Tokyo 1138656, Japan*)

Quantum spin transport in magnetic-field-engineered nano-structures

Th-eP83 **S. Watanabe[1], S. Sasaki[2], S. Sato[2], M. Nishimori[2], N. Isogai[3], Y. Matsumoto[3]** ([1]*Centre for Advancement of Higher Education, Tohoku University, Japan,* [2]*Graduate School of Science and Technology, Niigata University, Niigata, Japan,* [3]*Department of Applied Physics and Physico-Informatics, Keio University, Yokohama, Japan*)

Nuclear-spin detection of magnetic-field gradient in nanostructures

Th-eP84 **R.Brunner[1], M. Pioro-Ladrière[1,2], Y. Tokura[1,3], T. Obata[1], Y.-S. Shin[1], T. Kubo[1], K. Yoshida[1], T. Taniyama[4,5], S. Tarucha[1,6]** ([1]*Quantum Spin Information Project, ICORP, JST, Atsugi-shi, Kanagawa, 243-0198, Japan,* [2]*Departement de Physique, Universite de Sherbrooke, Sherbrooke, Quebec, J1K-2R1, Canada,* [3]*NTT Basic Research Laboratories, NTT Corporation, NTT Corporation, Atsugi-shi, 243-0198, Japan,* [4]*Materials and Structures Laboratory, Tokyo Institute of Technology, 4259 Nagatsuta, Yokohama, 226-8503, Japan,* [5]*PRESTO, Japan Science and Technology Agency, 4-1-8 Honcho Kawaguchi, Saitama 332-0012, Japan,* [6]*Department of Applied Physics, University of Tokyo, Hongo, Bunkyo-ku, Tokyo, 113-8656, Japan*)

Coherent Single Electron Manipulation in a Double Quantum Dot Specially Designed for Scalable Qubits

Th-eP86 **J. Swiebodzinski[1], A. L. Chudnovskiy[1], A. Kamenev[2]** ([1]*I. Institut für Theoretische Physik, Universität Hamburg, Jungiusstrasse 9, D-20335 Hamburg, Germany,* [2]*Department of Physics, University of Minnesota, Minneapolis, Minnesota 55455, USA*)

Spin torque shot noise

Th-eP87 **T. Yoshida, K. Oto** (*Department of Physics, Graduate School of Science, Chiba University, 1-33, Yayoi, Inage, Chiba 263-8522, Japan*)

Graphene-like magneto-oscillations in graphite capacitor

Th-eP88 **K. Bennaceur, F. Portier, P. Roche, C. GLATTLI** (*CEA Saclay, Nanoelectronics Group, SPEC, CEA Saclay, Gif-sur-Yvette F-91191, France*)

Quantum Hall effect in Graphene at large bias current.

Th-eP89 **T. Fukuzawa, M. Koshino, T. Ando** (*Department of Physics, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo 152-8551, Japan*)

Weak-field Hall effect in graphene calculated in self-consistent Born approximation

Th-eP90 **E. V. Kurganova[1], A. J. M. Giesbers[1], U. Zeitler[1], L. A. Ponomarenko[2], K. S. Novoselov[2], A. K. Geim[2], J. C. Maan[1]** ([1]*IMM, High Field Magnet Laboratory, Radboud University Nijmegen, Toernooiveld 7 , Nijmegen 6525 ED, The Netherlands,* [2]*Department of Physics, University of Manchester, Manchester M13 9PL, United Kingdom*)

Quantum Hall activation gaps in bilayer graphene

Th-eP91 **K. Asano[1], T. Ando[2]** ([1]*Department of Physics, Osaka University, 1-1 Machikaneyama, Toyonaka, Osaka , Japan,* [2]*Department of Physics, Tokyo Institute of Technology, 2-12-1 O-Okayama, Meguro, Tokyo, Japan*)

Approximate validity of Kohn's theorem in cyclotron resonance in graphene

Th-eP92 **J. M. Schneider, M. Orlita, M. Potemski, D. K. Maude** (*Grenoble High Magnetic Field Laboratory, 25 rue des Martyrs, Grenoble 38042 , France*)

Low temperature magneto-transport in graphite interpreted using the Slonczewski–Weiss–McClure band structure calculations

Th-eP93 **J. Guignard**[1], **W. Poirier**[1], **F. Schopfer**[1], **D. C. Glattli**[2] ([1]*Quantum Metrology Group, Laboratoire National de Metrologie et d'Essais (LNE), 29, avenue Roger Hennequin, Trappes 78197, France,* [2]*Service de Physique de l'Etat Condense, CEA, Orme des Merisiers, Gif-sur-Yvette 91191 France*)
Towards quantum Hall effect quantization tests in graphene

Th-eP94 **T. Higashi, N. Shibata** (*Department of Physics, Tohoku University, Aoba, Aoba-ku, Sendai 980-8578, Japan*)
Ground state phase diagram of graphene in a high Landau level

Th-eP95 **K. Shizuya** (*Yukawa Institute for Theoretical Physics, Kyoto University, Kitashirakawa, Sakyo-ku, Kyoto 606-8502, Japan*)
Pseudo-zero-mode Landau levels and pseudospin waves in bilayer graphene

Th-eP96 **K. Nomura**[1], **S. Ryu**[1], **M. Koshino**[1], **C. Mudry**[1], **A. Furusaki**[1] ([1]*Department of Physics, Tohoku university, Aoba, Aoba-ku, Sendai 980-8578 , Japan,* [2]*Department of Physics, University of California, Berkeley, Berkeley, CA, 94729, USA,* [3]*Department of Physics, Tokyo Institute of Technology, Meguro-ku, Tokyo 152-8551, Japan,* [4]*Condensed Matter Theory Group, Paul Scherrer Institute, CH-5232 Villigen PSI,,* [5]*Condensed Matter Theory Laboratory, RIKEN, Wako, Saitama 351-0198, Japan*)
Quantum transport of massless Dirac fermions in graphene

Th-eP97 **M. Ezawa** (*Department of Applied Physics, University of Tokyo, Hongo 7-3-1, Tokyo, Japan*)
Generation and Manipulation of Spin Current in Graphene Nanodisks

Th-eP98 **A. Secchi**[1], **M. Rontani**[2] ([1]*CNR-INFM S3 and Dipartimento di Fisica, Università degli Studi di Modena, Modena, Italy,* [2]*CNR-INFM Research Center S3, Modena, Italy*)
Coulomb versus spin-orbit interaction in carbon-nanotube quantum dots

Th-eP99 **S. Masubuchi**[1], **M. Ono**[1], **T. Machida**[1,2] ([1]*Institute of Industrial Science, University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo, 153-8505 Japan,* [2]*Institute for Nano Quantum Information Electronics, University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo, 153-8505 Japan*)
Gate-controlled magnetoresistance effect in graphene spin-valve devices

Th-eP100 **Mehdi Zarea, N. P Sandler** (*Dept. of Physics and Astronomy, and Nanoscale and Quantum Phenomena Inst., Ohio University, Clippinger Laboratory, Athens. OH 45701*)
Spin-orbit interactions in graphene and zigzag ribbons

Th-eP101 **S. J. Chorley, M. R. Buitelaar, A. L. Cantone, G. A. C. Jones, C. G. Smith** (*Cavendish Laboratory, University of Cambridge, Cavendish Laboratory, J J Thomson Avenue, Cambridge, CB3 0HE. England*)
Spin blockade and Kondo physics in a carbon nanotube double quantum dot

Th-eP102 **Chaste**[1], **Feve**[1], **Kontos**[1], **Berroir**[1], **Glattli**[1,1], **B. Placais**[1] ([1]*Laboratoire Pierre Aigrain, Ecole Normale Superieure, 24, rue Lhomond, Paris 75005, France,* [2]*Servie de Physique de l'Etat Condense, CEA-Saclay, F-91191 Gif-sur-Yvette, France*)

Th-eP103 **J. Hwang**[1], **H. T. Kim**[1], **D. Ahn**[2], **S. W. Hwang**[1] ([1]*TiNa and School of Electrical Engineering, 5-1 Anam, Sungbuk, Seoul 136-701, Korea,* [2]*iQUIPS and School of Electrical and Computer Engineering, 90 Jeonnong, Dongdaemoon, Seoul 130-743, Korea*)
Transport properties of guanine nucleotide-conjugated single-wall carbon nanotube field-effect transistor

Th-eP104 **Dong Chan Kim, Cheol Hyoun Ahn, Bo Hyun Kong, Hyung Koun Cho** (*School of Advanced Materials Science and Engineering, Sungkyunkwan University, Korea, 300 Cheoncheon-dong, Jangan-gu, Suwon, Gyeonggi-do*)

Epitaxial growth of vertically aligned MgZnO nanowire/nanowall network structures by MOCVD

Th-eP105 **T. Schuettfort, A. Nish, R.J. Nicholas** (*Physics Department, Oxford University, Clarendon Laboratory, Parks Rd, Oxford OX1 3PU, UK*)

Observation of type II excitons in carbon nanotubes

Th-eP106 **H. Miyazaki[1,2], K. Tsukagoshi[1,2,3], A. Kanda[2,5]** ([1]*AIST, 1-1-1 Higashi, Tsukuba, Ibaraki 305-8562, Japan,* [2]*CREST, JST, Kawaguch, Japan,* [3]*MANA, NIMS, Tsukuba, Japan,* [4]*RIKEN, Wako, Japan,* [5]*Inst. of Physics and TIMS, Univ. of Tsukuba, Tsukuba, Japan*)

Tunable semiconducting state in bilayer graphene

Th-eP108 **J. Berezovsky, R. M. Westervelt** (*Department of Physics, and School of Engineering and Applied Sciences, Harvard University, 9 Oxford St., Cambridge MA 02138, United States*)

Low temperature scanning probe imaging of electronic transport in graphene nanostructures

Th-eP109 **L. Prechtel[1,2], L. Song[2], S. Manus[2], D. Schuh[3], W. Wegscheider[3], A.W. Holleitner[1,2]** ([1]*Walter Schottky Institut and Physik-Department, Technische Universitaet Muenchen, Am Coulombwall, 85748 Garching, Germany,* [2]*Center for NanoScience (CeNS), Ludwig-Maximilians-University, Geschwister-Scholl-Platz 1, 80539 Munich, Germany,* [3]*Institut fuer Angewandte und Experimentelle Physik II, University Regensburg, Universitaetsstrasse 31, 93040 Regensburg, Germany*)

Picosecond Photocurrent Spectroscopy of Carbon Nanotubes

Th-eP110 **C. Faugeras[1], M. Orlita[1], M. Potemski[1], R.R. Nair[2], A. Geim[2]** ([1]*LNCMI-CNRS, BP 166 grenoble cedex 9 38042, France,* [2]*School of Physics and Astronomy, Schuster Building, University of Manchester, Oxford Road, Manchester M13 9PL, UK*)

Thermal conductivity of a large graphene membrane

Th-eP111 **H.M. Dong[1], W. Xu[1,2], Z. Zheng[1]** ([1]*Key Laboratory of Materials Physics, Institute of Solid State Physics, Chinese Academy of Sciences, Hefei 230031, P.R. China, P.O.Box 1129, Hefei ,Anhui, P.R.China 230031, China,* [2]*Department of Physics, Yunnan University, Kunming, China, Department of Physics, Yunnan University, Kunming, China*)

Photo-excited carriers and optical conductance and transmission in graphene in the presence of phonon scattering

Th-eP112 **Y. C. Wang[1], Q. Y. Kuo[1], J. M. Lu[2], C. C. Hwang[3]** ([1]*Department of Civil Engineering, National Cheng Kung University, No.1, University Rd., East District, Tainan City 70101, Taiwan,* [2]*National Center for High-Performance Computing, No. 28, Nanke 3rd Rd., Sinshih Township, Tainan County 74147, Taiwan,* [3]*Department of Engineering Science, National Cheng Kung University, No.1, University Rd., East District, Tainan City 70101, Taiwan*)

Molecular dynamics study of multi-walled carbon nanotubes under uniaxial loading

Th-eP113 **H. Schmidt, T. Lüdtke, P. Barthold, R. J. Haug** (*Institut für Festkörperphysik, Leibniz Universität Hannover, Appelstr. 2, Hannover 30167, Germany*)

Temperature Dependent Measurements on Two Decoupled Graphene Monolayers

Th-eP114 **T. Lüdtke, R. J. Haug** (*Abteilung Nanostrukturen, Institut für Festkörperphysik, Universität Hannover, Appelstr. 2, Hannover , Germany*)

Local gating of decoupled graphene monolayers

Th-eP115 **K. Sakai, K. Takai, K. Fukui, T. Enoki** (*Department of Chemistry, Tokyo Institute of Technology, 2-12-1, Meguro, Tokyo 152-8552, Japan*)

Investigation of the local electronic structure in the vicinity of the graphene edge by means of scanning tunneling microscopy

Th-eP116 **G. Giavaras[1], J. Wabnig[1], B. W. Lovett[1], J. H. Jefferson[2], G. A. D. Briggs[1]** ([1]*Department of Materials, University of Oxford, Parks Road, Oxford OX1 3PH, UK,* [2]*QinetiQ, St. Andrews Road, Malvern WR14 3PS, UK*)

A double quantum dot as a magnetic field and spin detector

Th-eP117 **S. Kawabata[1], Y. Asano[2], Y. Tanaka[3], S. Kashiwaya[1]** ([1]*National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan,* [2]*Department of Applied Physics, Hokkaido University, Sapporo, Japan,* [3]*Department of Applied Physics, Nagoya University, Nagoya, Japan*)

Atomic-scale 0- transition in Josephson junctions through spintronics nanostructures

Th-eP119 **N. Mizuochi[1,2], P. Neumann[3], F. Rempp[3], K. Nakamura[4], H. Watanabe[5], S. Yamasaki[6], F. Jelezko[3], J. Wrachtrup[3]** ([1]*Graduate School of Library, Information and Media Studies, University of Tsukuba, 1-2 Kasuga, Tsukuba-City 305-8550, Japan,* [2]*PRESTO, JST, 4-1-8 Honcho kawaguchi, Saitama, Japan,* [3]*Physikalisches Institut, Universität Stuttgart, Pfaffenwaldring 57, D-70550 Stuttgart, Germany,* [4]*Tokyo Gas Co., Ltd., 3-13-1, Minamisenju, Tokyo, 116-0003, Japan,* [5]*Diamond Research Center, AIST, Tsukuba Central 2, Tsukuba, 305-8568, Japan,* [6]*Nanotechnology Research Institute AIST, Tsukuba Central 2, Tsukuba, 305-8568, Japan*)

Coherence of single electron and nuclear spins in Diamond

Th-eP121 **T. Osada, S. Sugawara, D. Nakahara, H. Imamura, T. Konoike, K. Uchida** (*Institute for Solid State Physics, University of Tokyo, 5-1-5 Kashiwanoha, Kashiwa, Chiba 277-8581, Japan*)

Negative Interlayer Magnetoresistance and Dirac Fermion Nature in an Layered Organic Conductor and Multilayer Graphite

Th-eP123 **A. Mobius** (*Leibniz Institute for Solid State and Materials Research IFW Dresden, POB 270116, D-01171 Dresden , Germany*)

Indications for a line of continuous phase transitions at finite temperatures connected with the apparent metal-insulator transition in two-dimensional disordered systems

Th-eP124 **A. P Micolich[1], L.H. Ho[1], A.R. Hamilton[1], W.R. Clarke[1], R. Danneau[1], O. Klochan[1], M.Y. Simmons[1], M. Pepper[2], D.A. Ritchie[2]** (*[1]School of Physics, University of New South Wales, Sydney NSW 2052, Australia, [2]Cavendish Laboratory, University of Cambridge, Cambridge CB3 0HE, United Kingdom*)

Ground-plane screening as a probe of the role of long-range Coulomb interactions in the metallic state of a 2D hole system

Th-eP125 **J. Huang[1], J. S. Xia[2], D. C. Tsui[3], L. N. Pfeiffer[3], K. West[3]** (*[1]Taylor University, Department of Physics, Upland, Indiana 46989, USA, [2]University of Florida, Department of Physics, Gainsville, FL, USA, [3]Princeton University, Department of Electrical Engineering, Princeton, NJ 08544, USA*)

Possible Finite Temperature Phase Transition in Strongly Correlated GaAs Two-dimensional Holes in Zero Field

Th-eP126 **Z. Kvon[1], E. B.Olshanetsky[1], D. A. Kozlov[1], N. N. Mikhailov[1], I. O. Parm[1], J. C. Portal[2]** (*[1]Institute of Semiconductor Physics, Lavrentyev's street,13 630090 Novosibirsck, Russia, [2]GHMF, MPI-FKF/CNRS , BP-166, F-38042, Grenoble, Cedex 9, France*)

Magnetic field induced 2D excitonic insulator in HgTe QWs

Th-eP127 **P. Liu[1,2], ZZ. Wang[1], WW. Cai[1], DM. Chen[1]** (*[1]Institute of Physics, Chinese Academy of Sciences, Beijing, China, [2]Institute Neeel, CNRS/UJF, Grenoble, France*)

Dielectrophoresis-scanning tunneling microscopy method for electron transport measurement of individual nanowires

Th-eP128 **M. Abbarchi[1,2], T. Kuroda[2], C. Mastrandrea[1], A. Vinattieri[1], S. Sanguinetti[3], T. Mano[2], N. Koguchi[3], K. Sakoda[3], M. Gurioli[1]** (*[1]Physics department University of Firenze, Via Sansone 1 50019 , ITALY, [2]National Institute for Materials Science, 1-1 Namiki, Tsukuba 305-0044, Japan, [3]Dipartimento di Scienza dei Materiali, CNISM, Universit'a di Milano-Bicocca, Via Cozzi 53, 20125 Milano, Italy*)

Fine structure splitting of quantum dot excitons: role of geometry and environment

Th-eP129 **Z. F. Ezawa[1], G. Tsitsishvili[2]** (*[1]Theoretical Physics Laboratory, RIKEN, Saitama 351-0198, Japan, [2]Department of Theoretical Physics, A. Razmadze Mathematical Institute, Tbilisi, 380093 Georgia*)

Skyrmion and Bimeron Excitations in Bilayer Quantum Hall Systems

Th-eP130 **G.M. Gusev[1], S. Wiedmann[2], A.K. Bakarov[3], J.C. Portal[2]** (*[1]Instituto de Fsica da Universidade de So Paulo,, So Paulo, SP, Brazil, [2]LNCMI-CNRS / INSA, 25 rue des Martyrs, BP 166, Grenoble cedex 9 38042, France, [3]Institute of Semiconductor Physics, Novosibirsk, Russia, [4]Institut Universitaire de France, 103, bd Saint-Michel 75005 Paris, France*)

Fractional quantum Hall effect in trilayer systems in a tilted magnetic field

Th-eP131 **K. D. Moiseev[1], V. A. Berezovets[1,2], M. P. Mikhailova[1], V. I. Nizhankovskii[2], R. V. Parfeniev[1]** (*[1]Ioffe Physical-Technical Institute RAS, 26 Politekhnicheskaya street, St Petersburg 194021, Russia, [2]International Laboratory of High Magnetic Fields and Low Temperatures, Wroclaw, Poland*)

Spin-related electron transport in a single type II broken-gap heterojunction doped with Mn

Th-eP132 **T. Kato, S. Onari, J. Inoue** (*Department of Applied Physics, Nagoya University, Furo-cho, Chikusa-ku, Nagoya , Aichi 4648603, Japan*)
Spin Hall effect in a curved graphene with spin-orbit interaction

Th-eP133 **T. Inagaki[1], H. Kosaka[1,2], Y. Rikitake[3,2], H. Imamura[4,2], Y. Mitsumori[1,2], K. Edamatsu[1]** ([1]*Research Institute of Elecrtical Communication, Tohoku University, Sendai, Japan,* [2]*CREST-JST, Saitama, Japan,* [3]*Department of Information Engineering, Sendai National College of Technology, Sendai, Japan,* [4]*Nanotechnology Research Institute, AIST, Tsukuba, Japan*)
Optical measurement of electron spin coherence in a semiconductor quantum well

Friday July 24th

Session E9 (Main Hall) 9:00 – 10:30 Quantum transport

E9a 9:00 – 9:30 **M. Pioro-Ladriere[1,2], R. Brunner[1], Y. Tokura[1,3,1], T. Obata[1], Y.-S. Shin[1], T. Kubo[1], K. Yoshida[1], T. Taniyama[4], S. Tarucha[5,6]** (Invited) ([1]*Quantum Spin Information Project, ICORP-JST, Atsugi-shi, Kanagawa, 243-0198, Japan,* [2]*Departement Physique,, Universite de Sherbrooke, Sherbrooke, Quebec, J1K-2R1, Canada,* [3]*NTT Basic Research Laboratories, NTT Corporation, Atsugi-shi, 243-0198, Japan,* [4]*Materials and Structures Laboratory, Tokyo Institute of Technology, 4259 Nagatsuta, Yokohama, 226-8503, Japan,* [5]*PRESTO, 4-1-8 Honcho Kawaguchi, Saitama 332-0012, Japan,* [6]*Department of Applied Physics, University of Tokyo, Hongo, Bunkyo-ku, Tokyo, 113-8656, Japan*)
Manipulating single electron spins with micro-magnets

E9b 9:30 – 9:45 **C. Fricke[1], F. Hohls[1], C. Flindt[2], R. J. haug[1]** ([1]*Institut für Festkörperphysik, Leibniz Universität Hannover, Appelstr. 2, 30167 Hannover, Germany,* [2]*Department of Physics, Harvard University, 17 Oxford Street, Cambridge, MA 02138, USA*)
High cumulants in the counting statistics measured for a quantum dot

E9c 9:45 – 10:00 **R.S. Deacon[1], Y. Tanaka[2], A. Oiwa[1,3,4], R. Sakano[1], K. Shibata[5], K. Hirakawa[5,4,6], S. Tarucha[1,3,6]** ([1]*Department of Applied Physics and QPEC, University of Tokyo,* [2]*Condensed matter theory lab, RIKEN,* [3]*ICORP JST, Japan,* [4]*JST CREST, Japan,* [5]*IIS, University of Tokyo,* [6]*INQIE, University of Tokyo,*)
Andreev localized states and Kondo effect in InAs quantum dots contacted with superconducting and normal electrodes

E9d 10:00 – 10:15 **Seok-Chan Youn[1], Hyun-Woo Lee[2], H.-S. Sim[1]** ([1]*Department of Physics, Korea Advanced Institute of Science and Technology, 335 Gwahangno, Yuseong-gu, Daejeon 305-701, Republic of Korea,* [2]*PCTP and Department of Physics, Pohang University of Science and Technology, Pohang, Kyungbuk 790-784, Korea*)
Nonequilibrium Dephasing in an Electronic Mach-Zehnder Interferometer

E9e 10:15 – 10:30 **S. Sasaki**[1]**, H. Tamura**[1]**, S. Miyashita**[2]**, T. Maruyama**[2]**, T. Akazaki**[1]**, T. Fujisawa**[3] (*[1]NTT Basic Research Laboratories, 3-1, Morinosato-Wakamiya, Atsugi, Kanagawa 243-0198, Japan, [2]NTT Advanced Technology Corporation , 3-1, Morinosato-Wakamiya, Atsugi, Kanagawa 243-0198, Japan, [3]Tokyo Institute of Technology, 2-12-1, Ookayama, Meguro, Tokyo 152-8550, Japan*)

Fano-Kondo interplay in a side-coupled double quantum dot

10:30 – 11:00 **Coffee Break**

Session Plenary 5,6 (Main Hall) 11:00 – 12:30

PL5 11:00 – 11:45 **Susumu Noda** (*Department of Electronic Science and Engineering, Kyoto University, Kyoto 615-8510, Japan*)

Manipulation of Photons by Photonic Crystals

PL6 11:45 – 12:30 **Moty Heiblum** (*Braun Center for Sub Micron Research, Dept. of Condensed Matter Physics, Weizmann Institute of Science, Rehovot 76100, Israel*)

Physics observed through shot noise measurements

12:30 – 13:00 **Closing**