The 18th International Conference on

Electronic Properties of Two-Dimensional Systems

Program

Kobe International Conference Center, Kobe Japan

2009.7.19 ~ 7.24

(In joint with the 14th International Conference of Modulated Semiconductor Structures (MSS-14))

Program Leaflet

18th International Conference

on Electronic Properties of Two-Dimensional Systems

Introduction

The 18th International Conference on Electronic Properties of Two-Dimensional Systems (EP2DS-18) and the 14th International Conference on Modulated Semiconductor structures (MSS-14) will be jointly held at Kobe International Conference Center, Kobe, Japan, July 19 - 24, 2009. This will be the 2009 edition of the biennial conference series that are now established as the major events in the research fields of modulated semiconductors and low-dimensional electron systems.

What is “Joint Conference”

By making a registration either to EP2DS-18 or to MSS-14, the participants could freely come and go between the two. The submission of papers is limited, however, only to the registered Conference. If you want to submit papers to both Conferences, you need to register to both Conferences and to pay doulbe registration fee.

The first “joining” of the two conferences occured in 1985 for EP2DS-6 and MSS-2 in Kyoto, Japan. Tsuneya Ando (Chair of EP2DS) and Hiroyuki Sakaki (that of MSS) decided to hold the two conferences in parallel at the same location. This form was reenacted in Nara, Japan, in 1991, again in Nara, 2003, and has been followed from then on.

Conference Scope of EP2DS18

EP2DS traditionally covers the fundamental physics as well as transport, optical and other properties of electronic states in low dimensional systems. Now the low-dimensional family is expanding to novel systems such as nanotube, graphene, NEMS, and others.

- Electronic, optical and magnetic properties of low-dimensional systems
- Semiconductor heterostructures, superlattices, quantum wires, and quantum dots
- Quantum Hall effects
- Spin phenomena in nanostructures
- Novel low-dimensional systems, including graphene, carbon nanotubes, nanowires, NEMS, biological and molecular structures
- Physics and devices for quantum information processing
- Organic semiconductors and hybrid structures
- Metal-insulator transitions
- Novel probes, experimental techniques

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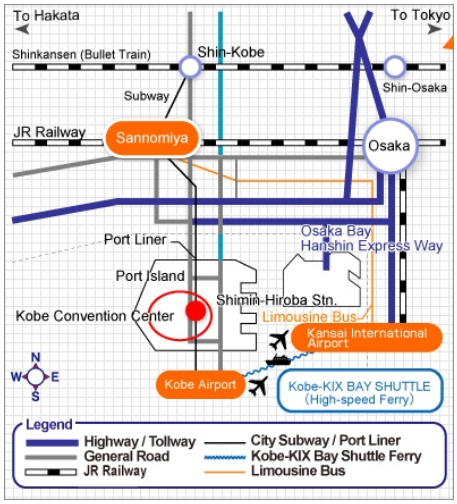
Access to the venue



Kobe city and the confernece center

Kobe is located in Hyogo Prefecture, one of several prefectures in the mid-west of Japan that, together, are known as the 'Kansai' Region. This is Japan's premier tourism area for overseas visitors making Kobe an ideal base city for visiting world heritage sites, both to the east and to the west. The Port of Kobe and its man-made islands are located on the north shore of the Osaka Bay.

Kobe International Conference Center is located on Port Island, about 10 minutes from downtown Kobe (Sannomiya) and only 8 minutes from Kobe Airport by "Port liner" (mono-rail train). "Shimin-Hiroba" station of Port liner is just next to the conference center.

From Kansai international airport

Easiest access to the venue is obtained from Kansai International Airport (KIX), which is the closest international gateway for Kobe and located around the Osaka Bay along a fast coastal highway. To transfer from KIX to Kobe:

Transfer by Taxi: About 70 minutes and approx. 22,000 Yen (KIX to downtown Kobe, Sannomiya).

Transfer by Limousine Bus: 65 minutes and 1,800 Yen (KIX to downtown Kobe, Sannomiya) (Operations every 10 20 minutes between 06:20 23:15).

Transfer by Bay Shuttle Ferry: 29 minutes and 1,500 Yen (KIX to Kobe Marine Air) (Operations every 45 60 minutes between 07:15 22:00). The KIX ferry dock is a 2 minutes free bus transfer from the airport terminal.

From Narita international airport

Transfer by Domestic Air (Narita to Osaka Itami Airport): Narita is an international airport with some domestic flights to Osaka Itami Airport. Flight time between Narita and Osaka Itami is about 60 minutes.

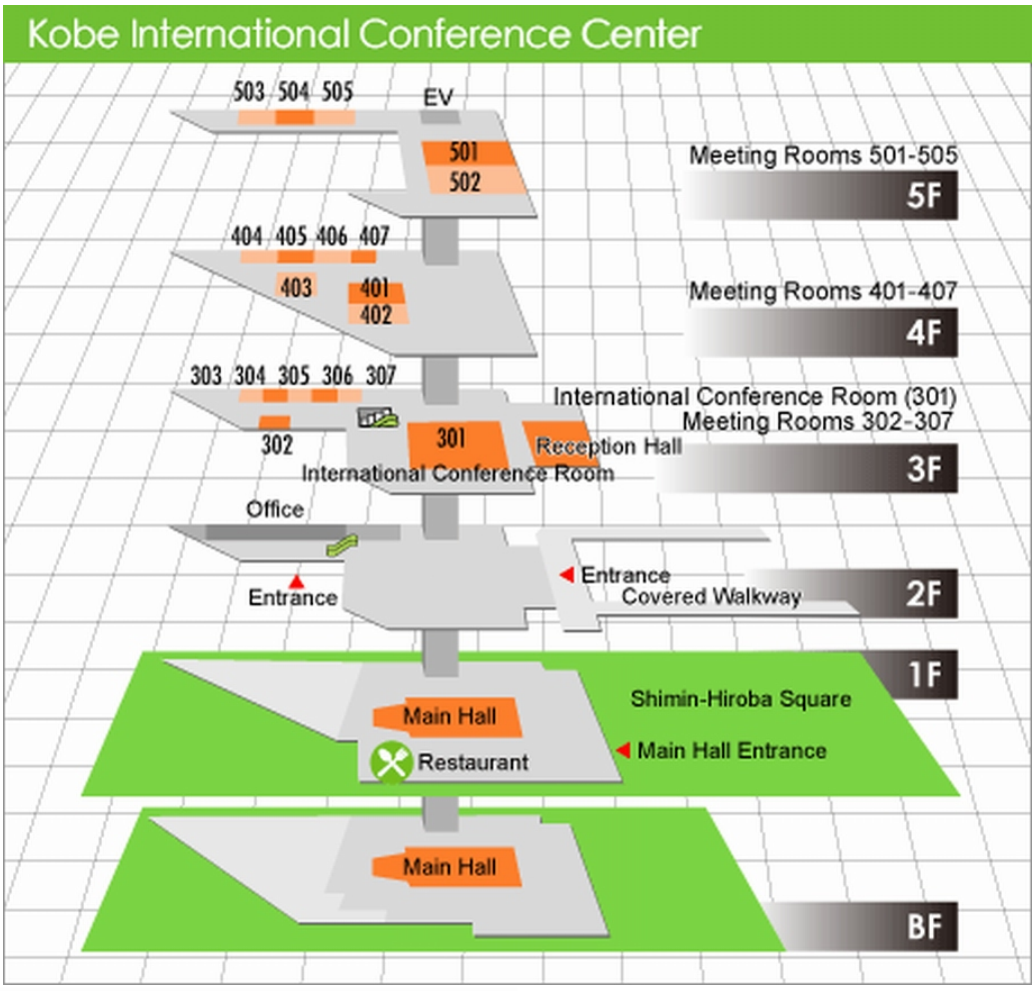
Transfer by Domestic Air (Haneda to Kobe Airport): Narita arrivals should first transfer to Tokyo's domestic airport Haneda for flights to Kobe. Bus transfers between Narita and Haneda take 75 minutes and cost 3,000 Yen. Flight time between Haneda and Kobe is about 60 minutes. (There are also flights to Osaka Itami if Kobe flights are full).

Domestic Rail Transfer: Trains from Narita to Tokyo Station take about 60 minutes and cost approx. 3,000 Yen (by the Narita Express train). Buses from Narita to Tokyo take 80110 minutes (depending on traffic conditions) and cost 3,000 Yen. Bullet Trains to Shin-Kobe from Tokyo take about 2 hrs 50 minutes and cost approx. 15,000 Yen. Trains run about every 20 minutes. From Shin-Kobe to Sannomiya is 5 minutes and 660 Yen by taxi, or 2 minutes and 200 Yen by City Subway.

About Port Liner train

The Port Liner trains run approx. every 5 minutes between Kobe Airport and Sannomiya. All trains stop at the station next to the Convention Center, called "Shimin-Hiroba". From Sannomiya to Shimin-Hiroba costs 240 Yen and takes about 10 minutes either way. Coming from Kobe Airport, the cost is 240 Yen and takes 8 minutes.

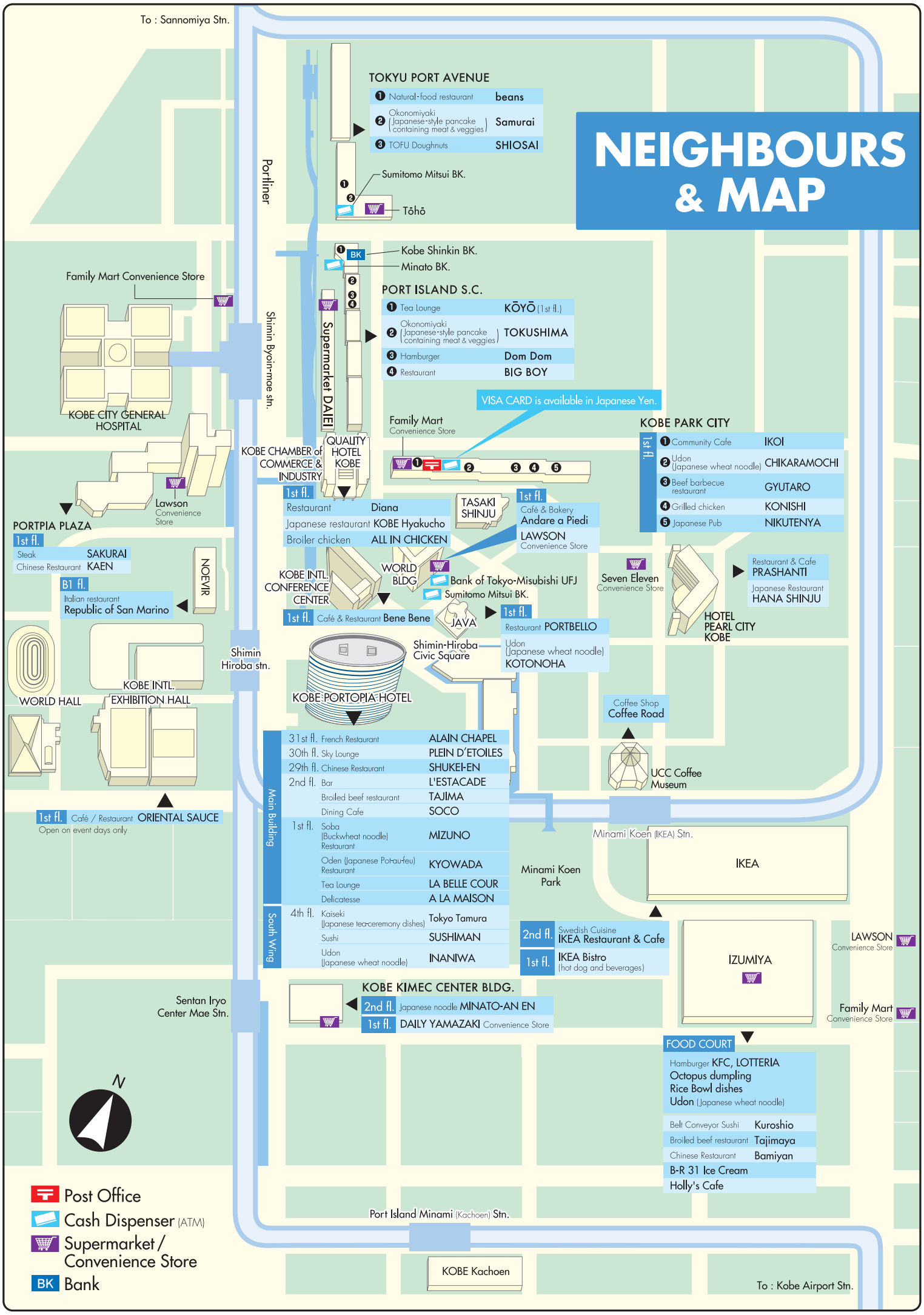
Floor map: Kobe International Center



Main Hall (BF～ 1E): Plenary Session, EP2DS Oral Session

Conference Hall (3F): MSS Oral Session

Meeting Room 501, 502 (5F): Poster Session


To : Sannomiya Stn.
NEIGHBOURS & MAP
TOKYU PORT AVENUE
1 Natural-food restaurant beans
2 Okonomiyaki (Japanese-style pancake containing meat & veggies) Samurai
3 TOFU Doughnuts SHIOSAI
Sumitomo Mitsui BK.
Tōhō
Portliner
Kobe Shinkin BK.
Minato BK.
Family Mart Convenience Store
PORT ISLAND S.C.
1 Tea Lounge KŌYŌ (1st fl.)
2 Okonomiyaki (Japanese-style pancake containing meat & veggies) TOKUSHIMA
3 Hamburger Dom Dom
4 Restaurant BIG BOY
Shimin Byoin-mae stn.
Supermarket DAIEI
VISA CARD is available in Japanese Yen.
Family Mart Convenience Store
KOBE PARK CITY
1st fl.
1 Community Cafe IKOI
2 Udon (Japanese wheat noodle) CHIKARAMOCHI
3 Beef barbecue restaurant GYUTARO
4 Grilled chicken KONISHI
5 Japanese Pub NIKUTENYA
KOBE CITY GENERAL HOSPITAL
KOBE CHAMBER of COMMERCE & INDUSTRY
QUALITY HOTEL KOBE
Lawson Convenience Store
PORTPIA PLAZA
1st fl.
Steak SAKURAI
Chinese Restaurant KAEN
B1 fl.
Italian restaurant Republic of San Marino
NOEVIR
1st fl.
Restaurant Diana
Japanese restaurant KOBE Hyakucho
Broiler chicken ALL IN CHICKEN
TASAKI SHINJU
1st fl.
Café & Bakery Andare a Piedi
LAWSON Convenience Store
KOBE INTL. CONFERENCE CENTER
WORLD BLDG
Bank of Tokyo-Misubishi UFJ
Sumitomo Mitsui BK.
Seven Eleven Convenience Store
Restaurant & Cafe PRASHANTI
Japanese Restaurant HANA SHINJU
HOTEL PEARL CITY KOBE
1st fl. Café & Restaurant Bene Bene
JAVA
1st fl.
Restaurant PORTBELLO
Udon (Japanese wheat noodle) KOTONOHA
Shimin Hiroba stn.
Shimin-Hiroba Civic Square
KOBE PORTOPIA HOTEL
WORLD HALL
KOBE INTL. EXHIBITION HALL
Coffee Shop Coffee Road
UCC Coffee Museum
Main Building
31st fl. French Restaurant ALAIN CHAPEL
30th fl. Sky Lounge PLEIN D'ETOILES
29th fl. Chinese Restaurant SHUKEI-EN
2nd fl. Bar L'ESTACADE
Broiled beef restaurant TAJIMA
Dining Cafe SOCO
1st fl. Soba (Buckwheat noodle) Restaurant MIZUNO
Oden (Japanese Pot-au-feu) Restaurant KYOWADA
Tea Lounge LA BELLE COUR
Delicatesse A LA MAISON
South Wing
4th fl. Kaiseki (Japanese tea-ceremony dishes) Tokyo Tamura
Sushi SUSHIMAN
Udon (Japanese wheat noodle) INANIWA
1st fl. Café / Restaurant ORIENTAL SAUCE
Open on event days only
Minami Koen (IKEA) Stn.
IKEA
Minami Koen Park
2nd fl. Swedish Cuisine IKEA Restaurant & Cafe
1st fl. IKEA Bistro (hot dog and beverages)
IZUMIYA
LAWSON Convenience Store
Family Mart Convenience Store
FOOD COURT
Hamburger KFC, LOTTERIA
Octopus dumpling
Rice Bowl dishes
Udon (Japanese wheat noodle)
Belt Conveyor Sushi Kuroshio
Broiled beef restaurant Tajimaya
Chinese Restaurant Bamiyan
B-R 31 Ice Cream
Holly's Cafe
KOBE KIMEC CENTER BLDG.
2nd fl. Japanese noodle MINATO-AN EN
1st fl. DAILY YAMAZAKI Convenience Store
Sentan Iryo Center Mae Stn.
N
Post Office
Cash Dispenser (ATM)
Supermarket / Convenience Store
BK Bank
Port Island Minami (Kachoen) Stn.
KOBE Kachoen
To : Kobe Airport Stn.

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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

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

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

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

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

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

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

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

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Measuring hybridization in GaInAs/InP electron billiard arrays

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

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Optical detected magnetoplasma effects in CdTe dense two dimensional electron systems

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

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

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

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

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Density influenced electric transport of double quantum point contacts in series

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Magnetic field asymmetry of nonlinear transport in a small ring

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Magneto-intersubband oscillations in triple quantum wells

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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

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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

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Cyclotron Resonance in 2D Hole Systems in InSb Quantum Wells

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

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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

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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

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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

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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

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Possible Sign Reversal of Rashba coefficient in InAs-based Heterostructures

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

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

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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

Mo-eP81 **S. Faniel[1,2], S. Mineshige[3], Y. Sekine[4], T. Koga[1,2]** ([1]*Graduate School of Information Science and Technology, Hokkaido University, N-14, W-9, Kita-ku, Sapporo, Hokkaido 060-0814, Japan,* [2]*Creative Research Initiative , N-21, W-10, Kita-ku, Sapporo, Hokkaido 001-0021, Japan,* [3]*Department of Electronics and Information Engineering, Hokkaido University, N13, W8, Kita-ku, Sapporo, Hohhaido 060-8628, Japan,* [4]*NTT Basic Research Laboratories, NTT Corporation, 3-1, Morinosato-Wakamiya, Atsugi, Kanagawa 243-0198, Japan*)

Spin interference effects in InGaAs/InAlAs rectangular loop arrays

Mo-eP82 **K. Ito[1], A. Narahara[1], H. Akinaga[2], T. Suemasu[1]** ([1]*Institute of Applied Physics, University of Tsukuba, Tsukuba, Ibaraki 305-8573, Japan,* [2]*National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki 305-8568, Japan*)

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

Mo-eP83 **S. M. Badalyan[1,2], A. Matos-Abiague[2], G. Vignale[3], J. Fabian[2]** ([1]*Yerevan State University, Yerevan, 375025 Armenia,* [2]*University of Regensburg, 93040 Regensburg, Germany,* [3]*University of Missouri - Columbia, Missouri 65211, USA*)

Spin-orbit interaction induced directional suppression of plasmon propagation

Mo-eP84 **T. Kutsuwa[1], M. Kuwahara[1], K. Ono[2,1], H. Kosaka[3,1]** ([1]*CREST-JST, 2-1-1, Katahira, Sendai 9808577, Japan,* [2]*Low Temperature Physics Laboratory, RIKEN, Saitama, 3510198, Japan,* [3]*Research Institute of Electrical Comminication, Tohoku University, 2-1-1, Katahira, Sendai 9808577, Japan*)

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

Mo-eP85 **S. Ishida[1], T. Manago[1], N. Nishizako[2], H. Geka[2], I. Shibasaki[2]** ([1]*Tokyo University of Science Yamaguchi, Daigakudori 1-1-1, San 窶凉 o-Onoda, Yamaguchi 756-0884, Japan,* [2]*Asahi Kasei Corporation, Samejima 2-1, Fuji, Shizuoka 416-8501, Japan*)

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

Mo-eP86 **B. Dai[1], A. Nogaret[1], P. Saraiva[1], F. Nasirpouri[1], J.C.Portal[2], H.E.Beere[3], D.A.Ritchie[3]** ([1]*Department of Physics, University of Bath BA2 7AY, UK,* [2]*Grenoble High Magnetic Field Laboratory, 28 Avenue des Martyrs, Grenoble 38042 France,* [3]*Cavendish Laboratory, University of Cambridge, CB3 0HE UK*)

Electrically detected spin resonance of ‘snake’ state oscillators

Mo-eP87 **P. Kossacki[1,4], M. Goryca[1,4], T. Kazimierczuk[1], M. Nawrocki[1], A. Golnik[1], J. A. Gaj[1], T. Wojtowic. [2], G. Karczewski[2], J. Cibert[3], S. Tatarenko[3]** ([1]*Institute of Experimental Physics, University of Warsaw, Warsaw, Poland, ul. Hoza 69, 00-681 Warsaw, Poland,* [2]*Institute of Physics, Polish Academy of Sciences, Warsaw, Poland, al. Lotnikow 32/46, 02-668 Warsaw, Poland,* [3]*Institute Neel ,CNRS/UJF, Grenoble, France, 25 rue des Martyrs B.P. 166, 38042 Grenoble cedex 9, France,* [4]*Grenoble High Magnetic Field Laboratory, CNRS, Grenoble, France, 25 rue des Martyrs B.P. 166, 38042 Grenoble cedex 9, France*)

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

Mo-eP88 **R. Raimondi[1], P. Schwab[2]** ([1]*Department of Physics, Roma Tre University, Via della Vasca Navale 84, Rome I-00146, Italy,* [2]*Institut für Physik, Universität Augsburg, D-86135 Augsburg, Germany*)

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

Mo-eP90 **M. Kida[1], T. Hatori[1], Y. Nakamura[1], Y. Togashi[1], N. Aoki[1], J. P. Bird[2], Y. Ochiai[1]** ([1]*Graduate School of Advanced Integration Science, Chiba University, Yayoi, Inage, Chiba 263-8522, Japan,* [2]*Deapartment of Electrical Engineering, University of Buffalo, SUNY, Buffalo, NY 14260-1900, USA*)

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

Mo-eP91 **Y. Mochizuki, H. Yoshioka** (*Department of Physics, Nara Women 寰洒 University, Kitauoyanishi-machi, Nara, JAPAN*)

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

Mo-eP92 **T. Maruyama[1], K. Yoshida[2], W. Norimatsu[1], M. Kusunoki[1,2]** ([1]*Nagoya University, Furo-cho, Chikusa-ku, Nagoya, 464-8603 464-8603, Japan,* [2]*Japan Fine Ceramics Center, 2-4-1 Mutsuno, Atsuta, Nagoya, 456-8587, Japan*)

Doping of Si into Aligned Carbon Nanotube Films on SiC

Mo-eP94 **A. A. Kaverzin, F. Withers, A. S. Price, S. M. Strawbridge, A. K. Savchenko, H. Pinto, R. Jones** (*School of Physics, University of Exeter, Stocker Road, Exeter, Devon EX4 4QL, UK*)

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

Mo-eP97 **A. Kanda[1,2], H. Goto[1,2], Y. Ootuka[1], K. Tsukagoshi[2,3,4], H. Yoshioka[5], M. Hayashi[6]** ([1]*Institute of Physics and TIMS, University of Tsukuba, 1-1-1 Tennodai, Tsukuba, Ibaraki 305-8571, Japan,* [2]*CREST, JST, Kawaguchi, Saitama 332-0012, Japan,* [3]*MANA, NIMS, Tsukuba, Ibaraki 305-0047, Japan,* [4]*AIST, Higashi, Tsukuba, Ibaraki 305-8568, Japan,* [5]*Department of Physics, Nara Women's University, Nara 630-8506, Japan,* [6]*Faculty of Education and Human Sciences, Akita University, Akita 010-8502, Japan*)

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

Mo-eP98 **Shao-Pi. Chiu[1], Hui-Fan. Chuang[2], Ji-Jun. Kai[2], Fu-Ron. Chen[2], J. Lin[1]** ([1]*National Chiao Tung University, Institute of Physics, National Chiao Tung University, Hsinchu, Taiwan,* [2]*National Tsing Hua University, Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan*)

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

Mo-eP99 **A. Nat. Pal, Arinda. Ghosh** (*Department of Physics, Indian Institute of Science, C V Raman Avenue, Bangalore 560012, India*)

Low frequency resistance noise in graphene based field effect devices

Mo-eP100 **W. Norimatsu[1,2], M. Kusunoki[1,2]** ([1]*EcoTopia Science Institute, Nagoya University, Furo-cho, Chikusa-ku, Nagoya-shi, Aichi-ken 464-8603, Japan,* [2]*Materials Research and Development Laboratory, Japan Fine Ceramics Center, 2-4-1, Mutsuno, Atsuta-ku, Nagoya-shi, Aichi-ken 456-8587, Japan*)

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

Mo-eP102 **S. Weingart[1], C. Bock[1], U. Kunz. [1], K.V. Emtsev[2], Th. Seyller[2], L. Ley[2]** ([1]*Werkstoffe und Nanoelektronik, Ruhr-Universität Bochum, Universitätsstr. 150, Bochum 44780 , Germany,* [2]*Lehrstuhl für Technische Physik, Friedrich-Alexander Universität Erlangen-Nürnberg, Erwin-Rommel-Straße 1, Erlangen 91058, Germany*)

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

Mo-eP103 **A. B. Dzyubenko[1,2], A. M. Fischer[3], R. A. Römer[3]** ([1]*Department of Physics, California State University Bakersfield, Bakersfield CA 93311, USA,* [2]*General Physics Institute, Russian Academy of Sciences, Moscow 119991, Russia,* [3]*Department of Physics and Centre for Scientific Computing, University of Warwick , Coventry CV4 7AL, UK*)

Localized magnetoplasmons in graphene

Mo-eP104 **T. Morinari** (*Yukawa Institute for Theoretical Physics, Kyoto University, Sakyo-ku Kitashirakwa Oiwakecho, Kyoto 6068502, Japan*)

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

Mo-eP105 **J. H. Ho[1,2], S. J. Tsai[1], Y. H. Chiu[1], M. F. Lin[1]** ([1]*Department of Physics, National Cheng Kung University, No.1 University Road, Tainan City 701, Taiwan* , [2]*Institute of Physics, Academia Sinica, No.128 Academia Road, Section 2, Nankang, Taipei 115, Taiwan*)

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

Mo-eP106 **A. Toyoda, T. Ando** (*Department of Physics, Tokyo Institute of Technology, 2-12-1 Ookayama, Meguro-ku, Tokyo*)

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

Mo-eP108 **E.B. Olshanetsky[1], Z.D. Kvon[1,2], M.V. Entin[1], L.I. Magarill[1,2], N.N. Mikhailov[1], I.O. Parm[1], S.A. Dvoretsky[1]** ([1]*Institute of Semiconductor Physics, pr. Lavrentjeva, 13, 630090, Novosibirsk, Russia,* [2]*Novosibirsk State University, 630090, Novosibirsk, Russia*)

Scattering processes in a 2D semimetal

Mo-eP109 **Shao-Pi. Chiu[1], Yong-Ha. Lin[2], Juhn-Jon. Lin[1,2]** ([1]*Institute of Physics, National Chiao-Tung University, 1001 Ta Hsueh Road, Hsinchu, 300, Taiwan ROC , Taiwan,* [2]*Department of Electrophysics, National Chiao Tung University, 1001 Ta Hsueh Road, Hsinchu, 300, Taiwan ROC , Taiwan*)

Electrical conduction mechanisms in natively doped ZnO nanowires

Mo-eP110 **R. Yagi[1], S. Fukada[1], H. Kobara[1], N. Ogita[2], M. Udagawa[2]** ([1]*AdSM, Hiroshima University, Kagamiyama 1-3-1, Higashi-Hiroshima, Hiroshima, 739-8530, Japan,* [2]*Graduate School of Integrated Arts and Sciences , Kagamiyama 1-7-1, Higasih-Hiroshima, Hiroshima, 739-8521, Japan*)

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

Tu-eP26 **A. V. Germanenko[1], N. Kozlova[2], G. M. Minkov[3], O. E. Rut[1], A. A. Sherstobitov[3], J. Freudenberger[2]** (*[1]Department of Physics, Ural State University, Lenin St. 51 620083, Russia, [2]Leibnitz Institute for Solid State and Material Research Dresden, IFW Dresden, D-01171 Dresden, Germany, [3]Institute of Metal Physics RAS, 620219 Ekaterinburg, Russia*)

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

Tu-eP27 **N. A. Goncharuk, J. Kucera, L. Smrcka** (*Institute of Physics of the AS CR, v. v. i., Cukrovarnicka 10, Prague 16200, Czech Republic*)

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

Tu-eP28 **R. Shimabukuro, K. Nakamura, T. Akiyama, T. Ito** (*Department of Physics Engineering, Mie University, 1577 Kurima-Machiya, Tsu, Mie 5148507, Japan*)

Electric field effects on magnetocrystalline anisotropy in ferromagnetic monolayers

Tu-eP29 **N. Nishizako[1], T. Manago[1], S. Ishida[1], H. Geka[2], I. Shibasaki[2]** ([1]*Tokyo University of Science, Yamaguchi, 1-1-1 Daigaku-Dori, Sanyo-Onoda, Yamaguchi 756-0884, JAPAN,* [2]*Asahi Kasei Co., Ltd., 2-1 Samejima, Fuji, Shizuoka*)

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

Tu-eP30 **K. Sadakuni[1], T. Harianto[1], H. Akinaga[2], T. Suemasu[1]** ([1]*Institute of Physics, University of Tsukuba, Tsukuba, Ibaraki 305-8573, Japan,* [2]*National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki 305-8568, Japan*)

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

Tu-eP31 **H. Kumazaki, D. S. Hirashima** (*Department of Physics, Nagoya University, Furo cho, Chikusa ku, Nagoya. Japan*)

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

Tu-eP33 **Dusti. J. Kreft[1], Ma. Bichler[2], Rober. H. Blick[1]** ([1]*Department of Electrical and Computer Engineering, University of Wisconsin - Madison, 1415 Engineering Drive, Madison, WI, USA,* [2]*Walter Schottky Institut, Technische Universität München, Garching, Germany*)

Electroacoustic excitation of nanomembranes

Tu-eP34 **M. C. Rogge, R. J. Haug** (*Institut für Festkörperphysik, Leibniz Universität Hannover, Appelstr. 2, 30167 Hannover, Germany*)

Triple quantum dots: two path transport and electrostatic stability diagram

Tu-eP35 **L. Gaudreau[1,2], A. Kam[1], P. Zawadzki[1], S. Studenikin[1], G. Granger[1], J. Kycia[3], J. Mason[3], Z. Wasilewski[1], A. S. 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,*)

Silencing a 'noisy' AlGaAs/GaAs Wafer

Tu-eP36 **K.-D. Hof[1], F.J. Kaiser[2], S. Kohler[2], D. Schuh[3], W. Wegscheider[3], J.P. Kotthaus[1], A. W. Holleitner[4]** ([1]*Center for NanoScience, Ludwig-Maximilians-Universität, Geschwister-Scholl-Platz 1, 80539 München, Germany.,* [2]*Institut für Physik, Universität Augsburg, 86135 Augsburg, Germany,* [3]*Institut für Angewandte und Experimentelle Physik II, Universität Regensburg, Universitätsstrasse 31, 93040 Regensburg, Germany.,* [4]*Walter Schottky Institut and Physik-Department, Technische Universität München, Am Coulombwall 3, Garching 85748, Germany*)

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

Tu-eP38 **L. W. Smith[1], W. K. Hew[1], K. J. Thomas[2], M. Pepper[1], I. Farrer[1], D. Anderson[1], G. A. . Jones[1], D. A. Ritchie[1]** ([1]*Department of Physics, University of Cambridge, Cavendish Laboratory, J. J. Thomson Avenue, Cambridge CB3 0HE, United Kingdom,* [2]*Department of Electronic and Electrical Engineering, Sungkyunkwan University, Suwon 440-746, South Korea*)

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

Tu-eP39 **T. Hatano[1], T. Kubo[1], S. Amaha[1], S. Teraoka[1], Y.Tokura[1,2], S. Tarucha[1,3]** ([1]*Quantum Spin Information Project, ICORP, JST, Atsugi-shi, Kanagawa 243-0198, Japan,* [2]*NTT Basic Research Laboratories, NTT Corporation, Atsugi-shi, Kanagawa 243-0198, Japan,* [3]*Department of Applied Physics, Univ. of Tokyo, Hongo, Bunkyo-ku, Tokyo 113-8656, Japan*)

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

Tu-eP42 **H. Kim, N. Kim** (*Department of Physics, Soongsil University, Sangdo 5 dong, Dongjak-ku, Seoul 156-743, Korea*)

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

Tu-eP47 **A. Tagliacozzo**[1,2], **P. Lucignano**[2,3] (*[1]Università di Napoli Federico II, Dipartimento di Scienze Fisiche, Complesso Universitario Monte S.Angelo, Via Cintia, 80125 Napoli, Italy, [2]CNR-INFM Coherentia, via Cintia, 80125 Napoli, Italy, [3]Scuola Internazionale Superiore di Studi Avanzati (SISSA), via Beirut 2, 34014 Trieste, Italy*)

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

Tu-eP49 **J. C. H. Chen**[1], **O. Klochan**[1], **A. P. Micolich**[1], **A. R. Hamilton**[1], **D. Reuter**[2], **A. D. Wieck**[2] (*[1]Department of Physics, University of New South Wales, Sydney NSW 2052, Australia, [2]Angewandte Festkörperphysik, Ruhr-Universität Bochum, D-44780 Bochum, Germany*)

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

Tu-eP50 **R. Takahashi**[1,2], **K. Kono**[1,2], **S. Tarucha**[3,4], **K. Ono**[1,5] (*[1]Low temperature physics laboratory, RIKEN, 2-1 Hirosawa Wako, Saitama 351-0198, Japan, [2]Department of Physics, Tokyo Institute of Technology, 2-12-1 O-Okayama, Meguro, Tokyo 152-8551, Japan, [3]Department of Applied Physics, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan, [4]ICORP-JST, Atsugi-shi, Kanagawa 243-0198, Japan , [5]CREST-JST, 4-1-8 Honcho, Kawaguchi, Saitama 332-0012, Japan*)

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

Tu-eP54 **M. Bukala, M. Galicka, R. Buczko, P. Kacman** (*Institute of Physics, Polish Academy of Sciences, Al. Lotnikow 32/46, Warsaw 02-668 , Poland*)

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

Tu-eP56 **Y. Niimi[1,2], Y. Baines[1], T. Capron[1], D. Mailly[1,3], F.-Y. Lo[1], A. D. Wieck[1], T. Meunier[1], L. Saminadayar[1], C. Bäuerle[1]** (*[1]Institut Nel, CNRS and Universit Joseph Fourier, 38042 Grenoble, France, [2]Department of Physics, Tohoku University, Sendai, 980-8578, Japan, [3]Laboratoire de Photonique et Nanostructures, 91460 Marcoussis, France, [4]Lehrstuhl für Angewandte Festkörperphysik, Ruhr-Universität, 44780 Bochum, Germany*)

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

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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

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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

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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

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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

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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

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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

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Magnetoconductivity in graphene Corbino devices

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Quasi-Periodic Conductance Fluctuations in Few-Layer Graphene

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Toward chaotic electron transport in bismuth nanocluster wires

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Transport properties of quantum dot with thermally decomposited graphene

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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

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Interacting electrons in semiconducting carbon nanotube quantum dots: calculation of the excited states by exact diagonalisation

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

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

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

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Electron confinement in single layer graphene quantum dots

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

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Electron-hole crossover in graphene quantum dots

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

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Efficient purification protocols using iSWAP gates in solid-state qubits

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

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Two-electron spin manipulation by photon assisted tunneling

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

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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

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Low-Energy Electronic Properties of Ribbon-Graphene Hybrid Systems

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

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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

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

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Fluctuation Theorem in Single-Electron Counting

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

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

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Observation of the "lobe structure" in the ballistic interferometers

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Fluctuation Theorem in a Quantum Dot Aharonov-Bohm Interferometer

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Electronic states in laterally coupled vertical triple quantum dots

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

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

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Cooling a 2D electron gas using quantum dots

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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

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Enhanced thermoelectric power of single quantum dot systems at low temperatures: Exact solution analysis

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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

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

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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

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Selective control of edge channel trajectories by SGM

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

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Finite size scaling analysis of the Chalker-Coddington model

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

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

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Manipulating terahertz photons on a quantum Hall effect device

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

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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

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Spin filtering in Kondo quantum dots and spin-orbit interaction

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

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Electron transport in a Semiconductor-Quantum-Dot Spin Diode

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

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

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

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Charge conservation in dynamic inverse spin Hall effect

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

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

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Nuclear-spin detection of magnetic-field gradient in nanostructures

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

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Spin torque shot noise

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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

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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

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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 – 11:15 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**