

Section Semiconductor Physics Fachverband Halbleiterphysik (HL)

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Overview of Invited Talks and Sessions

(lecture rooms H1, H13, H14, H15, and H17; Poster A)

Invited Talks

HL 2.1	Mon	9:15–10:00	H15	Metamaterials: Magnetism enters photonics — ●MARTIN WEGENER
HL 3.1	Mon	10:00–10:45	H15	Wide-bandgap quantum dot based microcavity VCSEL structures — ●K. SEBALD, H. LOHMEYER, J. GUTOWSKI, C. KRUSE, R. KRÖGER, T. YAMAGUCHI, A. GUST, D. HOMMEL, J. WIERSIG, F. JAHNKE
HL 8.1	Mon	14:00–14:45	H15	Coupling phenomena in dual electron waveguide structures — ●SASKIA FISCHER, SVEN BUCHOLZ, GABRIELA APTETRII, ULRICH KUNZE, DIETER SCHUH, GERHARD ABSTREITER
HL 16.1	Tue	9:15–10:00	H15	Why has doping been difficult in colloidal semiconductor quantum dots? — ●DAVID J. NORRIS
HL 17.1	Tue	10:00–10:45	H15	Magnetic anisotropy and magnetization switching in ferromagnetic GaMnAs — ●WOLFGANG LIMMER
HL 34.1	Thu	9:15–10:00	H15	Momentum space wave functions in InAs quantum dots mapped by capacitance voltage spectroscopy — ●DIRK REUTER
HL 50.1	Fri	10:15–11:00	H15	Quantum Transport in High Mobility GaN/AlGaN 2DEGs and Nanostructures — ●STEFAN SCHMULT, ALEXANDER PUNNOOSE, MICHAEL J. MANFRA, HUNGTAO CHOU, DAVID GOLDHABER-GORDON, RICHARD J. MOLNAR

Internal symposia within HL

Internal Symposium: THz interactions

Organisation: D. Hägele (Ruhr-Universität Bochum)

HL 29.1	Wed	14:15–14:45	H15	Interaction of semiconductor laser dynamics with THz radiation — ●MARTIN HOFMANN
HL 29.2	Wed	14:45–15:15	H15	Ultrafast THz Spectroscopy of Carrier Correlations in Complex Materials — ●ROBERT A. KAINDL
HL 29.3	Wed	15:15–15:45	H15	Interaction of THz Radiation with Semiconductor Nanostructures: Microscopic Theory — ●STEPHAN KOCH, MACKILLO KIRA
HL 29.4	Wed	15:45–16:15	H15	Nonlinear terahertz and midinfrared response of n-type GaAs — ●MICHAEL WOERNER, PETER GAAL, WILHELM KÜHN, KLAUS REIMANN, THOMAS ELSAESSER, RUDOLPH HEY, KLAUS PLOOG
HL 29.5	Wed	16:15–16:45	H15	Terahertz near-field microscopy — ●ROLAND KERSTING, FEDERICO BUERGENS, GYU CHEON CHO

Internal Symposium: Bose-Einstein Kondensation in Halbleitern

Organisation: G. Bauer (Universität Linz)

HL 20.1	Tue	10:45–11:15	H15	Polariton Condensation in CdTe Microcavities: interaction and coherence — J. KASPRZAK, M. RICHARD, S. KUNDERMANN, A. BAAS, P. JEAMBRUN, J. KEELING, F. M. MARCHETTI, M. H. SZYMANSKA, R. ANDRÉ, J. L. STAEHLI, P. B. LITTLEWOOD, B. DEVEAUD, •DANIEL LE SI DANG
HL 20.2	Tue	11:15–11:45	H15	On the way to an excitonic Bose-Einstein condensate: New experiments in Cuprous Oxide. — •HEINRICH STOLZ, DIETMAR FRÖHLICH
HL 20.3	Tue	11:45–12:15	H15	Challenges on the way towards Bose-Einstein condensation of excitons — •ROLAND ZIMMERMANN
HL 20.4	Tue	12:15–12:45	H15	Signatures of excitonic condensates in quantum Hall bilayers — •LARS TIEMANN, RODNEY WIERSMA, SJOERD LOK, WERNER DIETSCHKE, KLAUS V. KLITZING, KOJI MURAKI

Internal Symposium: Graphene

Organisation: T. Seyller (Universität Erlangen-Nürnberg)

HL 37.1	Thu	10:00–10:30	H15	Photoelectron spectroscopy of graphene on SiC: growth, interface, and electronic structure — A. BOSTWICK, K.V. EMTSEV, K. HORN, E. HUWALD, L. LEY, J.L. MCCHESENEY, T. OHTA, J. RILEY, E. ROTENBERG, •TH. SEYLLER, F. SPECK
HL 37.2	Thu	10:30–11:00	H15	Raman Imaging of Graphene — DAVY GRAF, FRANCOISE MOLITOR, •KLAUS ENSSLIN, CHRISTOPH STAMPFER, ALAIN JUNGEN, CHRISTOPHER HIEROLD
HL 37.3	Thu	11:00–11:30	H15	Electronic confinement and coherence in high mobility epitaxial graphene — •CLAIRE BERGER
HL 37.4	Thu	11:30–12:00	H15	News from the quantum Hall effects in graphene — •ULI ZEITLER
HL 37.5	Thu	12:00–12:30	H15	The structure of suspended graphene membranes — •J. C. MEYER, A. K. GEIM, M. I. KATSNELSON, K. S. NOVOSELOV, T. BOOTH, D. OBERGFELL, S. ROTH, C. GIRIT, A. KIS, A. ZETTL

Internal Symposium: Semiconductor Microcavities and Entangled States in Quantum Dots

Organisation: D. Heitmann (Universität Hamburg)

HL 44.1	Thu	14:00–14:30	H15	Electron spin dynamics in quantum dots — •MANFRED BAYER
HL 44.2	Thu	14:30–15:00	H15	Electrical control of entangled excitons in self-assembled quantum dot molecules — •HUBERT J. KRENNER
HL 44.3	Thu	15:00–15:30	H15	Quantum optical studies on laterally coupled quantum dots and pillar microcavities — •P. MICHLER, GARETH BEIRNE, C. HERMANNSTÄDTER, S. M. ULRICH, SERKAN ATES, L. WANG, A. RASTELLI, O. G. SCHMIDT, C. GIES, J. WIERSING, F. JAHNKE, S. REITZENSTEIN, C. HOFFMANN, A. LÖFFLER, A. FORCHEL
HL 44.4	Thu	15:30–16:00	H15	Exciton qubits: From Rabi oscillations towards optoelectronic quantum gates — •ARTUR ZRENNER, STEFAN STUFLER, PATRIK ESTER, STEFFEN MICHAELIS DE VASCONCELLOS, MARC C. HÜBNER, MAX BICHLER, PAWEŁ MACHNIKOWSKI, VOLLRATH M. AXT, TILMANN KUHN
HL 44.5	Thu	16:15–16:45	H15	Optical Semiconductor Microtube Ring Cavities — •TOBIAS KIPP, CHRISTIAN STRELOW, HOLGER WELSCH, HAGEN REHBERG, CHRISTOPH M. SCHULTZ, CHRISTIAN HEYN, DETLEF HEITMANN
HL 44.6	Thu	16:45–17:15	H15	Semiconductor quantum dots as entangled light sources — •DAVID GERSHONI
HL 44.7	Thu	17:15–17:45	H15	Configuration mixing of electronic states in quantum dots — KRONER M., GOVOROV S., REMI S., SEIDL S., BADOLETO A., PETROFF P., WARBURTON R., •KAHLED KARRAI
HL 44.8	Thu	17:45–18:15	H15	Coupled Quantum Dots for Quantum Information — •TOM REINECKE

Invited talks of the joint symposium SYSS

See SYSS for the full program of the Symposium.

(arranged by the divisions HL, MA, O,TT)

Organization: G. Bayreuther, J. Fabian, Universität Regensburg

SYSS 1.1	Mon	9:30–10:00	H1	Generating and manipulating spins in semiconductors — ●DAVID AWSCHALOM
SYSS 1.2	Mon	10:00–10:20	H1	Spin noise spectroscopy and spin dynamics in semiconductors — ●MICHAEL OESTREICH, MICHAEL RÖMER, STEFANIE DÖHRMANN, STEFAN OERTEL, DANIEL HÄGELE, JENS HÜBNER
SYSS 1.3	Mon	10:20–10:40	H1	Spin-orbit interaction in Si quantum wells — ●WOLFGANG JANTSCH, HANS MALISSA, ZBYSLAW WILAMOWSKI
SYSS 1.4	Mon	10:40–11:00	H1	Driven coherent oscillations of a single electron spin in a quantum dot — ●FRANK KOPPENS, CHRISTO BUZERT, KLAAS-JAN TIELROOIJ, IVO VINK, KATJA NOWACK, TRISTAN MEUNIER, LEO KOUWENHOVEN, LIEVEN VANDERSYPEN
SYSS 1.5	Mon	11:00–11:20	H1	Electrical spin injection and detection in semiconductors — ●PAUL CROWELL
SYSS 1.6	Mon	11:20–11:40	H1	A microscopic view of the magnetism in magnetic semiconductors (<i>replaces the contribution by N. Samarth</i>) — ●MICHAEL FLATTÉ
SYSS 1.7	Mon	11:40–12:00	H1	Tailoring ferromagnetism in bulk semiconductors and quantum dots — ●IGOR ZUTIC
SYSS 1.8	Mon	12:00–12:20	H1	Tunnel Anisotropic Magneto Resistance - TAMR — ●LAURENS MOLENKAMP
SYSS 1.9	Mon	12:20–12:40	H1	Electric field controlled spintronic effects based on spin-orbit coupling — ●TOMAS JUNGWIRTH
SYSS 1.10	Mon	12:40–13:00	H1	Zero-bias spin separation in semiconductor heterostructures — ●SERGEY GANICHEV

Invited talks of the joint symposium SYSE

See SYSE for the full program of the Symposium.

(arranged by the divisions DF, DS, HL, MM)

Organization: O. G. Schmidt, Max-Planck-Institut für Festkörperforschung, Stuttgart, D. Hesse, Max-Planck-Institut für Mikrostrukturphysik, Halle

SYSE 1.1	Mon	14:30–15:00	H1	Wavy and Buckled Nanoribbons and Nanotubes: Mechanics and Applications — ●JOHN ROGERS
SYSE 2.1	Mon	16:15–16:45	H1	Enhancing Ferroelectrics and Multiferroics using Strain — ●D.G. SCHLOM, M.D. BIEGALSKI, A. SOUKIASSIAN, J.H. HAENI, J.H. LEE, R.W. ULBRICHT, C.M. BROOKS, Y. JIA, V. VAITHYANATHAN, W. TIAN, X. KE, D.A. TENNE, A.V. RAO, A. KUMAR, L. TIAN, A. SHARAN, S. CHOUDHURY, Y.L. LI, P. SCHIFFER, S. TROLIER-MCKINSTRY, X.X. XI, V. GOPALAN, L.Q. CHEN, K.J. CHOI, D.M. KIM, C.B. EOM, Y.B. CHEN, H.P. SUN, X.Q. PAN, D.D. FONG, M.A. ZURBUCHEN, J.A. EASTMAN, P.H. FUOSS, S.K. STREIFFER, P. IRVIN, J. LEVY, W. CHANG, S.W. KIRCHOFER, T. HEEG, J. SCHUBERT, A. BRUCHHAUSEN, N.D. LANZILLOTTI-KIMURA, A. FAINSTEIN, R.S. KATIYAR, A. CANTARERO, M.E. HAWLEY, Q.X. JIA, C.J. FENNIE, S.M. NAKHMANSON, K.M. RABE, A.K. TAGANTSEV, B. VELICKOV, R. UECKER, P. REICHE
SYSE 2.3	Mon	17:00–17:30	H1	Patterning ferroelectric nanostructures by epitaxial strain — ●HO NYUNG LEE, MATTHEW CHISHOLM
SYSE 2.4	Mon	17:30–18:00	H1	Curl in Photonic Crystals Induced by Drying Stresses upon Sol-Gel Infiltration — ●VLADIMIR KITAEV, EVANGELLOS VEKRIS, GEOFFREY OZIN

Invited talks of the joint symposium SYOE

See SYOE for the full program of the Symposium.

(arranged by the divisions CPP, DS, HL, O)

Organization: V. Wagner, International University Bremen, C. Wöll, Ruhr-Universität-Bochum

SYOE 4.1	Tue	9:30–10:15	H1	Vapor and Solution Deposited Small Molecule Organic Thin Film Transistors — ●THOMAS JACKSON
SYOE 5.1	Tue	11:15–12:00	H1	Organic electronic devices and their applications — ●PAUL HEREMANS

SYOE 6.1	Tue	14:30–15:15	H32	Theory of polymer devices: OFETs and OLEDs — ●REINDER COEHOORN
SYOE 7.1	Tue	16:30–17:15	H32	Electronic spectrum and spin states of a single organic molecule — ●HERRE VAN DER ZANT
SYOE 10.1	Wed	16:45–17:30	H32	Single grain contacts — ●GREGOR WITTE

Invited talks of the joint symposium SYEN

See SYEN for the full program of the Symposium.

(arranged by the divisions DY, HL, TT)

Organization: J. Siewert, Universität Catania Italien

SYEN 1.1	Thu	14:00–14:30	H1	Probabilities (and more) from entanglement — ●WOJCIECH ZUREK
SYEN 1.2	Thu	14:30–15:00	H1	Entanglement and the Foundations of Statistical Mechanics — ●SANDU POPESCU
SYEN 1.3	Thu	15:00–15:30	H1	Universality and classical simulation of quantum computation — MAARTEN VAN DEN NEST, WOLFGANG DÜR, AKIMASA MIYAKE, GUIFRE VIDAL, ●HANS BRIEGEL
SYEN 1.4	Thu	15:30–16:00	H1	Towards the convex roof of multipartite entanglement measures — ●ANDREAS OSTERLOH, JENS SIEWERT, ROBERT LOHMAYER, ARMIN UHLMANN
SYEN 1.5	Thu	16:00–16:30	H1	Decoherence induced by interacting quantum spin baths — ●ROSARIO FAZIO
SYEN 1.6	Thu	16:30–17:00	H1	Sweep a qubit to learn about its environment — ●PETER HÄNGGI, MARTIJN WUBS, KEIJI SAITO, ROLAND DOLL, SIGMUND KOHLER, YOSUKE KAYANUMA

Gaede Prize

(arranged by the divisions O, VA, HL)

O 37.1	Wed	14:00–14:45	H36	Gallium-Nitride-on-Silicon: Mission possible! — ●ARMIN DADGAR
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Sessions

HL 1.1–1.3	Sun	14:00–17:00	H1	Tutorial on Semiconductor Spintronics
HL 2.1–2.1	Mon	9:15–10:00	H15	Invited Talk Wegener
HL 3.1–3.1	Mon	10:00–10:45	H15	Invited Talk Sebald
HL 4.1–4.9	Mon	10:45–13:00	H13	Semiconductor Laser I
HL 5.1–5.9	Mon	11:00–13:15	H14	Photovoltaic
HL 6.1–6.8	Mon	11:00–13:00	H15	Quantum dots and wires: preparation and characterization I
HL 7.1–7.8	Mon	11:00–13:00	H17	III-V semiconductors I
HL 8.1–8.1	Mon	14:00–14:45	H15	Invited Talk Fischer
HL 9.1–9.10	Mon	14:45–17:15	H13	Semiconductor Laser II
HL 10.1–10.5	Mon	14:45–16:00	H14	Organic semiconductors
HL 11.1–11.10	Mon	14:45–17:30	H15	Quantum dots and wires: Transport properties I
HL 12.1–12.12	Mon	14:45–18:00	H17	Quantum dots and wires: Optical properties I
HL 13.1–13.80	Mon	15:00–17:30	Poster A	Poster 1
HL 14.1–14.6	Mon	16:00–17:30	H14	Si/Ge
HL 15.1–15.3	Mon	17:15–18:00	H13	Preparation and characterization
HL 16.1–16.1	Tue	9:15–10:00	H15	Invited Talk Norris
HL 17.1–17.1	Tue	10:00–10:45	H15	Invited Talk Limmer
HL 18.1–18.8	Tue	10:45–12:45	H13	Photonic crystals I
HL 19.1–19.9	Tue	10:45–13:00	H14	Spin controlled transport I
HL 20.1–20.4	Tue	10:45–12:45	H15	Symposium Bose-Einstein Kondensation in Halbleitern
HL 21.1–21.8	Tue	11:00–13:00	H17	III-V semiconductors II
HL 22.1–22.10	Tue	14:00–16:45	H13	Photonic crystals II
HL 23.1–23.8	Tue	14:00–16:00	H14	Spin controlled transport II
HL 24.1–24.11	Tue	14:00–17:00	H15	Quantum dots and wires: Transport properties II
HL 25.1–25.11	Tue	14:00–17:00	H17	Quantum dots and wires: Optical properties II
HL 26.1–26.4	Tue	16:00–17:00	H14	Interfaces/surfaces

HL 27.1–27.12	Wed	14:15–17:30	H13	II-VI semiconductors
HL 28.1–28.9	Wed	14:15–16:30	H14	Optical properties
HL 29.1–29.5	Wed	14:15–16:45	H15	Symposium THZ interactions
HL 30.1–30.2	Wed	14:15–14:45	H17	Hybrid systems
HL 31.1–31.12	Wed	14:45–18:00	H17	Quantum dots and wires: Optical properties III
HL 32.1–32.6	Wed	16:30–18:00	H14	C/diamond
HL 33.1–33.4	Wed	16:45–17:45	H15	New materials
HL 34.1–34.1	Thu	9:15–10:00	H15	Invited Talk Reuter
HL 35.1–35.10	Thu	10:00–12:45	H13	Devices
HL 36.1–36.9	Thu	10:00–12:15	H14	Heterostructures
HL 37.1–37.5	Thu	10:00–12:30	H15	Symposium Graphene
HL 38.1–38.11	Thu	10:00–13:00	H17	ZnO I
HL 39.1–39.3	Thu	12:15–13:00	H14	Impurities/amorphous semiconductors
HL 40.1–40.2	Thu	12:30–13:00	H15	SiC
HL 41.1–41.1	Thu	12:45–13:00	H13	Metal-insulator transitions
HL 42.1–42.9	Thu	14:00–16:15	H13	GaN: devices
HL 43.1–43.7	Thu	14:00–15:45	H14	Theory of electronic structure
HL 44.1–44.8	Thu	14:00–18:15	H15	Semiconductor Microcavities and Entangled States in Quantum Dots
HL 45.1–45.13	Thu	14:00–17:30	H17	ZnO II
HL 46.1–46.79	Thu	15:00–17:30	Poster A	Poster 2
HL 47.1–47.10	Thu	15:45–18:15	H14	Transport in high magnetic field/quantum-Hall-effect
HL 48.1–48.7	Thu	16:15–18:00	H13	Quantum dots and wires: preparation and characterization II
HL 49.1–49.3	Thu	17:30–18:15	H17	Graphene
HL 50.1–50.1	Fri	10:15–11:00	H15	Invited Talk Schmult
HL 51.1–51.10	Fri	11:00–13:30	H13	GaN: preparation and characterization
HL 52.1–52.10	Fri	11:00–13:30	H14	Transport properties
HL 53.1–53.11	Fri	11:00–13:45	H15	Ultra fast phenomena

Annual General Meeting of the Section Semiconductor Physics

Donnerstag 19:00–21:00 Teppichraum Mensa

- Begrüßung und Bericht
- Stichwortkatalog
- Wahl des Fachverbandsvorsitzenden und dessen Stellvertreter
- Verschiedenes