

## Semiconductor Physics Division Fachverband Halbleiterphysik (HL)

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### Overview of Invited Talks and Sessions

(lecture rooms ER 270, ER 164, EW 201, EW 202 and EW 203; Poster D)

#### Invited Talks

HL 1.1	Mon	9:30–10:15	ER 270	<b>Electrically driven single quantum dot emitter operating at room temperature</b> — •TILMAR KÜMMELL, ROBERT ARIANS, GERD BACHER, ARNE GUST, CARSTEN KRUSE, DETLEF HOMMEL
HL 2.1	Mon	10:15–11:00	ER 270	<b>Theory of Ultrafast Dynamics of Electron-Phonon Interactions: Semiconductor Quantum Wells, Surfaces and Graphene</b> — •ANDREAS KNORR, STEFAN BUTSCHER, NORBERT BÜCKING, MARTEN RICHTER, FRANK MILDE, PETER KRATZER, MATTHIAS SCHEFFLER, CARSTEN WEBER
HL 4.1	Mon	14:00–14:45	ER 270	<b>Optical spectroscopy of wide-gap semiconductors: Is our picture of van Hove singularities still valid?</b> — •RÜDIGER GOLDHAHN
HL 18.1	Tue	9:30–10:15	ER 270	<b>Quantum Spin Hall Insulator State in HgTe Quantum Wells</b> — •HARTMUT BUHMANN, MARKUS KÖNIG, STEFFEN WIEDMANN, CHRISTOPH BRÜNE, ANDREAS ROTH, LAURENS W. MOLENKAMP, XIAO-LIANG QI, SHOU-CHENG ZHANG
HL 20.1	Tue	14:15–15:00	ER 270	<b>Y-branched nanojunctions as nanoelectronic logic elements, memory devices and sensors</b> — •LUKAS WORSCHER, DAVID HARTMANN, CHRISTIAN MÜLLER, ALFRED FORCHEL
HL 37.1	Thu	9:30–10:15	ER 270	<b>Terahertz detection of many-body signatures in semiconductor heterostructures</b> — •SANGAM CHATTERJEE, TORBEN GRUNWALD, DAVID KÖHLER, TILMANN G. JUNG, DANIEL GOLDE, MACKILLO KIRA, STEPHAN W. KOCH
HL 38.1	Thu	10:15–11:00	ER 270	<b>Spin dynamics in high-mobility 2D electron systems: effects of electron-electron interaction and anisotropy</b> — •TOBIAS KORN, DOMINIK STICH, NATALIE STEFFEK, DIETER SCHUH, WERNER WEGSCHEIDER, MING-WEI WU, CHRISTIAN SCHÜLLER
HL 40.1	Thu	14:00–14:45	ER 270	<b>Charge transport in organic molecular crystals</b> — •KARSTEN HANNEWALD

#### Internal Symposium: Nanostructured Photonic Materials

Organisation: Prof. Dr. Ralf Wehrspohn (Universität Halle-Wittenberg)

HL 5.1	Mon	15:00–15:30	ER 270	<b>FDTD method in nanophotonics: 2D and 3D photonic crystals and lasing</b> — •ANDREI LAVRINENKO
HL 5.2	Mon	15:30–16:00	ER 270	<b>Efficient Coupling into Photonic-Crystal Cavities and Waveguides</b> — •SOLOMON ASSEFA, WILLIAM GREEN, FENGNIAN XIA, YURII VLASOV
HL 5.3	Mon	16:00–16:30	ER 270	<b>Optical Super Lens: From Near-Field to Far Field</b> — •XIANG ZHANG
HL 5.4	Mon	16:45–17:15	ER 270	<b>Nanoplasmonics for field enhancement and subwavelength guiding</b> — •SERGEY I. BOZHEVOLNYI
HL 5.5	Mon	17:15–17:45	ER 270	<b>Scaling left-handed materials towards optical frequencies</b> — •MARIA KAFESAKI, RALUCA PENCIU, THOMAS KOSCHNY, ELEFTHERIOS ECONOMOU, COSTAS SOUKOULIS
HL 5.6	Mon	17:45–18:15	ER 270	<b>Engineering optical space with metamaterials</b> — •VLADIMIR SHALAEV

**Internal Symposium: Spin Effects in Semiconductors of Reduced Dimensionality**

Organisation: Prof. Dr. Werner Wegscheider (Universität Regensburg)

HL 19.1	Tue	10:30–11:00	ER 270	<b>Novel devices using local control of magnetic anisotropies in (Ga,Mn)As.</b> — ●CHARLES GOULD, JAN WENISCH, SILVIA HÜMPFNER, KATRIN PAPPERT, MANUEL SCHMIDT, CHRISTIAN KUMPF, KARL BRUNNER, GEORG SCHMIDT, LAURENS W. MOLENKAMP
HL 19.2	Tue	11:00–11:30	ER 270	<b>Local spin manipulation in a semiconductor by nanostructured ferromagnets</b> — PATRIC HOHAGE, SIMON HALM, JÖRG NANNEN, ●GERD BACHER
HL 19.3	Tue	11:30–12:00	ER 270	<b>Nonequilibrium nuclear-electron spin dynamics in semiconductor quantum dots</b> — ●FRITZ HENNEBERGER, ILYA AKIMOV
HL 19.4	Tue	12:00–12:30	ER 270	<b>Electrical spin injection into single InGaAs quantum dots</b> — ●MICHAEL HETTERICH, WOLFGANG LÖFFLER, THORSTEN PASSOW, DIMITRI LITVINOV, DAGMAR GERTHSEN, HEINZ KALT
HL 19.5	Tue	12:30–13:00	ER 270	<b>Transport in 2DEGs and Graphene: Electron Spin vs. Sublattice Spin</b> — ●MAXIM TRUSHIN, JOHN SCHLIEMANN

**Internal Symposium: Semiconductor Nanowires**

Organisation: Prof. Dr. Klaus Ensslin (ETH Zürich)

HL 21.1	Tue	15:15–15:45	ER 270	<b>Electron Transport in InAs Nanowire Quantum Dots</b> — ●ANDREAS FUHRER, CARINA FASTH, LARS SAMUELSON
HL 21.2	Tue	15:45–16:15	ER 270	<b>Electronic properties of gate defined and etched quantum dots in InAs nanowires</b> — ●IVAN SHORUBALKO, ANDREAS PFUND, SIMON GUSTAVSSON, RENAUD LETURCQ, SILKE SCHÖN, KLAUS ENSSLIN
HL 21.3	Tue	16:15–16:45	ER 270	<b>prismatic quantum heterostructures on MBE grown GaAs nanowires</b> — ●ANNA FONTCUBERTA I MORRAL
HL 21.4	Tue	16:45–17:15	ER 270	<b>From ordered arrays of nanowires to controlled solid state reactions</b> — ●MARGIT ZACHARIAS
HL 21.5	Tue	17:15–17:45	ER 270	<b>Top-Down and Bottom-Up: Nanophotonics with ZnO and Silica Nanowires</b> — ●TOBIAS VOSS

**Internal Symposium: Semiconducting Nanoparticles for Nano-Optics and Optoelectronics**

Organisation: Prof. Dr. Axel Lorke (Universität Duisburg)

HL 52.1	Fri	10:30–11:00	ER 270	<b>Semiconducting nanoparticles in industrial applications</b> — ●MARTIN TROCHA, ANDRÉ EBBERS, ANNA PRODI-SCHWAB, HEIKO THIEM
HL 52.2	Fri	11:00–11:30	ER 270	<b>Silicon and Germanium Nanoparticles: Spectroscopy and Electronic transport</b> — ●CEDRIK MEIER, STEPHAN LÜTTJOHANN, MATTHIAS OFFER, SONJA HARTNER, HARTMUT WIGGERS, AXEL LORKE
HL 52.3	Fri	11:30–12:00	ER 270	<b>Photoluminescence Spectroscopy of Semiconductor Nanorods and Their Hybrid Structures</b> — ●ANDREY ROGACH
HL 52.4	Fri	12:00–12:30	ER 270	<b>Charge carrier dynamics of surface modified semiconductor nanocrystals</b> — ●ALF MEWS, MA XUEDAN, JESSICA VÖLKER, MAXIME TCHAYA, HERBERT KNEPPE
HL 52.5	Fri	12:30–13:00	ER 270	<b>Ultrafast Exciton Relaxation Dynamics in Silicon Quantum Dots</b> — ●CAROLA KRYSCHI, VOLKER KUNTERMANN, CARLA CIMPEAN, VINCENT GROENEWEGEN, ANJA SOMMER

**Sessions**

HL 0.1–0.3	Sun	14:00–17:00	ER 270	<b>Tutorial: Graphene</b>
HL 1.1–1.1	Mon	9:30–10:15	ER 270	<b>Invited Talk Kümmell</b>
HL 2.1–2.1	Mon	10:15–11:00	ER 270	<b>Invited Talk Knorr</b>
HL 3.1–3.7	Mon	11:15–13:00	ER 270	<b>Quantum dots: Microcavities and photonic crystals</b>
HL 4.1–4.1	Mon	14:00–14:45	ER 270	<b>Invited Talk Goldhahn</b>
HL 5.1–5.6	Mon	15:00–18:15	ER 270	<b>Symposium Nanostructured Photonic Materials</b>
HL 6.1–6.8	Mon	9:30–11:30	EW 201	<b>Photonic crystals I</b>
HL 7.1–7.6	Mon	11:30–13:00	EW 201	<b>II-VI semiconductors</b>

HL 8.1–8.4	Mon	14:00–15:00	EW 201	Interfaces/ surfaces
HL 9.1–9.13	Mon	15:00–18:30	EW 201	ZnO: Preparation and characterization I
HL 10.1–10.5	Mon	9:30–10:45	EW 202	Preparation and characterization
HL 11.1–11.8	Mon	11:00–13:00	EW 202	C/diamond
HL 12.1–12.9	Mon	14:00–16:15	EW 202	Photovoltaic
HL 13.1–13.5	Mon	16:15–17:30	EW 202	Theory of electronic structure
HL 14.1–14.7	Mon	9:30–11:15	ER 164	Heterostructures
HL 15.1–15.7	Mon	11:15–13:00	ER 164	Devices
HL 16.1–16.12	Mon	14:00–17:15	ER 164	Quantum dots and wires: Optical properties I
HL 17.1–17.53	Mon	16:30–19:00	Poster D	Poster I
HL 18.1–18.1	Tue	9:30–10:15	ER 270	Invited Talk Buhmann
HL 19.1–19.5	Tue	10:30–13:00	ER 270	Symposium Spin Effects in Semiconductors of Reduced Dimensionality
HL 20.1–20.1	Tue	14:15–15:00	ER 270	Invited Talk Worschech
HL 21.1–21.5	Tue	15:15–17:45	ER 270	Symposium Semiconductor Nanowires
HL 22.1–22.6	Tue	9:30–11:00	EW 201	Hybrid systems
HL 23.1–23.8	Tue	11:00–13:00	EW 201	Quantum dots and wires: Transport properties I
HL 24.1–24.14	Tue	9:30–13:15	EW 202	Photonic crystals II
HL 25.1–25.5	Tue	14:15–15:30	EW 202	Spin controlled transport I
HL 26.1–26.10	Tue	15:45–18:15	EW 202	III-V semiconductors I
HL 27.1–27.11	Tue	16:00–19:00	EW 203	Photonic crystals III
HL 28.1–28.10	Tue	9:30–12:00	ER 164	Transport properties
HL 29.1–29.5	Tue	12:00–13:15	ER 164	New materials
HL 30.1–30.13	Tue	14:15–17:45	ER 164	Quantum dots and wires: Transport properties II
HL 31.1–31.69	Tue	16:30–19:00	Poster D	Poster II
HL 32.1–32.13	Wed	14:15–17:45	ER 270	Quantum dots and wires: preparation and characterization I
HL 33.1–33.15	Wed	14:15–18:30	EW 201	III-V semiconductors II
HL 34.1–34.12	Wed	14:15–17:30	EW 202	Semiconductor Laser
HL 35.1–35.13	Wed	14:15–17:45	ER 164	Spin controlled transport II
HL 36.1–36.45	Wed	16:30–19:00	Poster D	Poster III
HL 37.1–37.1	Thu	9:30–10:15	ER 270	Invited Talk Chatterjee
HL 38.1–38.1	Thu	10:15–11:00	ER 270	Invited Talk Korn
HL 39.1–39.7	Thu	11:15–13:00	ER 270	Ultra fast phenomena
HL 40.1–40.1	Thu	14:00–14:45	ER 270	Invited Talk Hannewald
HL 41.1–41.9	Thu	15:00–17:30	ER 270	Organic semiconductors
HL 42.1–42.12	Thu	9:30–13:00	EW 201	Optical Properties of Quantum dots: Theory and Simulation
HL 43.1–43.9	Thu	14:00–16:30	EW 201	Quantum dots and wires: Optical properties II
HL 44.1–44.7	Thu	16:45–18:30	EW 201	Quantum dots and wires: preparation and characterization II
HL 45.1–45.9	Thu	9:30–11:45	EW 202	GaN devices
HL 46.1–46.4	Thu	11:45–12:45	EW 202	Transport in high magnetic field/quantum-Hall-effect
HL 47.1–47.13	Thu	14:00–17:30	EW 202	GaN: preparation and characterization I
HL 48.1–48.4	Thu	9:30–10:30	ER 164	ZnO: Preparation and characterization II
HL 49.1–49.9	Thu	10:45–13:00	ER 164	ZnO: Optical properties
HL 50.1–50.7	Thu	14:00–15:45	ER 164	ZnO: Transport
HL 51.1–51.65	Thu	16:30–19:00	Poster D	Poster IV
HL 52.1–52.5	Fri	10:30–13:00	ER 270	Symposium Semiconducting Nanoparticles for Nano-Optics and Optoelectronics
HL 53.1–53.13	Fri	10:30–14:00	EW 201	Optical properties
HL 54.1–54.17	Fri	10:30–15:00	EW 202	Si/Ge
HL 55.1–55.12	Fri	10:30–13:45	ER 164	GaN: preparation and characterization II

## Annual General Meeting of the Semiconductor Physics Division

Thu 18:00–19:00 ER 164

- Begrüßung und Bericht
- Stichwortkatalog
- Verschiedenes