

Synopsis of the Daily Program

Sunday, March 10, 2013

TUT

			Tutorials
16:00	H2	TUT 1.1	Optimal Control Theory •E.K.U. Gross
16:35	H2	TUT 1.2	Coherent control in ultrafast nano-optics •Tobias Brixner, Martin Aeschlimann, Walter Pfeiffer
17:20	H2	TUT 1.3	Coherent control of ultrafast electron dynamics •Matthias Wollenhaupt
17:55	H2	TUT 1.4	Ultrafast coherent control of electrical currents in semiconductors and nanostructures •Markus Betz
16:00	H3	TUT 2.1	Current transport through nanoscale electronic components •Artur Erbe
16:35	H3	TUT 2.2	Theory of electronic transport in single-molecule junctions •Juan Carlos Cuevas
17:10	H3	TUT 2.3	DNA-programmed assembly of dendrimers and conjugated polymers •Kurt Gothelf
17:45	H3	TUT 2.4	Silicon Nanowires: A Versatile Technology Platform for Nanoelectronic Research •Thomas Mikolajick, Andre Heinzig, Jens Trommer, Dominik Martin, Matthias Grube, Andreas Krause, Walter Weber
16:00	H4	TUT 3.1	High-performance computational physics on graphics processing units •Tobias Kramer
17:15	H4	TUT 3.2	Simulating spin models on GPU •Martin Weigel
16:00	H10	TUT 4.1	Spindynamics and Spintransport •Jürgen Lindner
17:00	H10	TUT 4.2	Spindynamics and Spintransport •Alina Deac
16:00	H20	TUT 5.1	Topological Insulators and Superconductors •Andreas Schnyder
16:50	H20	TUT 5.2	Proximity Induced Superconductivity in Topological Insulators •Hartmut Buhmann
17:40	H20	TUT 5.3	Majorana Fermions in Hybrid Nanosystems •Michael Wimmer
			Sessions
16:00	H2	TUT 1	Tutorial: Coherent Control (HL)
16:00	H3	TUT 2	Tutorial: Integration and Modelling of Nanoelectronic Components (DS)
16:00	H4	TUT 3	Tutorial: GPU Computing (SKM)
16:00	H10	TUT 4	Tutorial: Spindynamics and Spintransport (MA)
16:00	H20	TUT 5	Tutorial: Topological Insulators and Majorana-Fermion Physics (TT)

19:00 Mensa Welcome Evening (Entrance for registered participants only)

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Plenary Talks

08:30	H1	PV I	Optical Dressing of Molecules and Materials •Thomas W. Ebbesen
14:00	H1	PV II	Exploring the Functionality of Advanced Materials through Scanning Transmission Electron Microscopy •Stephen Pennycook
14:00	H15	PV III	The Dynamics of Wealth, Persuasion, and Popularity •Sidney Redner

SYBD

Invited Talks

15:00	H1	SYBD 1.1	Functionalization and Pharmaceutical Aspects of Magnetic Nanoparticles (Magnetic Carriers) •Urs O. Häfeli
15:30	H1	SYBD 1.2	Fluid mechanical aspects of therapeutic application of suspensions of magnetic nanoparticles •Stefan Odenbach
16:00	H1	SYBD 1.3	Magnetic Particle Imaging: A new Medical Imaging Modality •Thorsten Buzug
16:30	H1	SYBD 1.4	Superparamagnetic iron oxide nanoparticles for MR-visible mesh implants and novel drug targeting models •Ioana Slabu, Anjali Roeth, Christiane Kuhl, Thomas Schmitz-Rode, Martin Baumann
17:00	H1	SYBD 1.5	Magnetic measurement techniques assisting biomedical applications of magnetic nanoparticles •Lutz Trahms

Session

15:00	H1	SYBD 1	Magnetic Nanoparticles in Biomedical Diagnostics and Therapy
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SYCT

Invited Talks

09:30	H1	SYCT 1.1	A coarse grained QM/MM approach for the description of charge transfer in complex systems •Marcus Elstner
10:00	H1	SYCT 1.2	Identifying and resolving charge separation in organic solar cells •Eberhard Riedle
10:30	H1	SYCT 1.3	Quantifying the energy of charge transfer states: From molecular crystals to donor-acceptor blends •Reinhard Scholz
11:00	H1	SYCT 1.4	Efficient Exciton Generation and Collection in Organic Solar Cells •Mark Thompson, Cong Trinh, Steve Forrest, Jeremy Zimmerman
11:30	H1	SYCT 1.5	Electron transport in organic single-crystal transistors and Schottky-gated heterostructures •Alberto Morpurgo

Session

09:30	H1	SYCT 1	Charge Transfer Effects in Molecular Materials
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SYSD

			Invited Talks
11:30	H2	SYSD 1.1	Morphometry and Granular Matter •Sebastian Kapfer
11:55	H2	SYSD 1.2	Ultrafast Dynamics of Charge Density Wave Order in DyTe ₃ •Laurenz Rettig
12:20	H2	SYSD 1.3	Structure Formation in Reconstituted Active Systems •Volker Schaller, Christoph Weber, Erwin Frey, Andreas R. Bausch
12:45	H2	SYSD 1.4	Domino Day at Surfaces: An Atomistic Picture of Charge Density Wave Formation at Surfaces •Simone Wall
			Session
11:30	H2	SYSD 1	SKM Dissertation-Prize 2013

BP

			Invited Talk, Topical Talks
09:30	H43	BP 1.1	Motor-clutch model for substrate stiffness sensing by living cells •David Odde, Benjamin Bangasser, Steven Rosenfeld
09:30	H44	BP 2.1	Energy conversion mechanisms of heat shock proteins •Thorsten Hugel
15:00	H43	BP 5.1	Cytoskeletal pattern formation: Self organization of driven filaments •Andreas Bausch
15:30	H44	BP 6.1	Publishing in Physical Review Letters •Karsten Kruse
16:00	H44	BP 6.2	The Opportunities of Open Access Publishing •Eberhard Bodenschatz
			Sessions
09:30	H43	BP 1	Cell migration
09:30	H44	BP 2	Proteins
09:30	H47	BP 3	Statistical Physics in Biological Systems I (joint with DY)
09:30	H1	BP 4	Charge Transfer Effects in Molecular Materials (SYCT, joint with CPP, HL and DS)
15:00	H43	BP 5	Cytoskeleton
15:30	H44	BP 6	Publishing in the Age of the Internet (joint with jDPG)
15:00	H1	BP 7	Magnetic Nanoparticles in Biomedical Diagnostics and Therapy (SYBD, joint with MA, CPP and ST)
17:30	Poster B2	BP 8	Posters: Proteins
17:30	Poster B2	BP 9	Posters: Membranes
17:30	Poster B2	BP 10	Posters: Imaging
17:30	Poster B2	BP 11	Posters: Statistical Physics in Biological Systems (joint with DY)

CPP

			Invited Talks
09:30	H34	CPP 1.1	Rich variety of polymer dynamics in nanocomposites •Gerald Johannes Schneider
11:30	H34	CPP 1.7	Photonic structures based on responsive nanoparticle/microgel hybrids •Thomas Hellweg
09:30	H40	CPP 2.1	Langmuir monolayers as physical models in bio- and nanosciences •Helmuth Möhwald, Gerald Brezesinsky

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CPP

15:00	H34	CPP 5.1	Intra- and inter-molecular dynamics in glass-forming liquids •Periklis Papadopoulos, Wilhelm Kossack, Friedrich Kremer
15:00	H40	CPP 6.1	a molecular picture of charge-transfer processes at donor-acceptor interfaces in organic solar cells •Jean-Luc Bredas
16:00	H40	CPP 6.4	High efficiency OLEDs based on delayed fluorescence •Chihaya Adachi
17:00	H40	CPP 6.7	The role of intermolecular hybridization in molecular electrical doping •Ingo Salzmann, Georg Heimel, Henry Méndez, Andreas Opitz, Patrick Barkowski, Martin Oehzelt, Katrein Sauer, Norbert Koch

Sessions

09:30	H34	CPP 1	Nanoparticles and Composite Materials I
09:30	H40	CPP 2	Interfaces and Thin Films I (joint session with DECHEMA and VDI)
12:15	H1	CPP 3	Charge Transfer Effects in Molecular Materials I (joint session CPP/HL/BP/DS)
15:00	H1	CPP 4	SYBD: Magnetic Nanoparticles in Biomedical Diagnostics and Therapy
15:00	H34	CPP 5	Glasses and Glass Transition I (joint session DY/ CPP)
15:00	H40	CPP 6	Charge Transfer Effects in Molecular Materials II (joint session CPP/HL/BP/DS)
17:15	H32	CPP 7	Organic Electronics and Photovoltaics I (joint session DS/ CPP/HL/O)
17:30	Poster C	CPP 8	Poster: New Instruments and Methods
17:30	Poster C	CPP 9	Poster: Interfaces and Thin Films (joint session with DECHEMA and VDI)
17:30	Poster C	CPP 10	Poster: Charge transfer effects in molecular materials (related to symposium SYCT)
17:30	Poster C	CPP 11	Poster: Glasses and Glass Transition (joint session DY/ CPP)
17:30	Poster C	CPP 12	Poster: Nanoparticles and Composite Materials

DF

Sessions

09:30	H11	DF 1	Nano- and microstructured dielectrics
09:30	H3	DF 2	Multiferroics 1 (jointly with MA,DS,KR,TT)
10:30	H11	DF 3	Dielectric surfaces and interfaces
15:00	H11	DF 4	Electrical and mechanical properties
15:00	H3	DF 5	Multiferroics 2 (jointly with MA,DS,KR,TT)
16:05	H11	DF 6	Nonlinear dielectrics, phase transitions, relaxors
16:25	H11	DF 7	Ceramics
16:50	H11	DF 8	Application of dielectric solids
15:00	H34	DF 9	Glasses and Glass Transition I (joint session with CPP, DY)

DS

Invited Talks, Topical Talks

09:30	H32	DS 2.1	Mechanisms of ion beam induced surface pattern formation •Thomas Michely
10:00	H32	DS 2.2	Mechanisms of surface pattern formation under irradiation with heavy ions •Karl-Heinz Heinig, Bartosz Liedke, Herbert Urbassek, Christian Anders, Lothar Bischoff, Roman Böttger
10:30	H32	DS 2.3	Interaction of energetic ultraheavy ions with surfaces •Lothar Bischoff, Roman Böttger, Karl-Heinz Heinig

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DS

11:15	H32	DS 2.4	Quantitative analysis of nanoripple patterns by GISAXS 3D mapping •David Babonneau, Elliot Vandennecke, Mathieu Garel, Sophie Camelio, Sophie Rousselet
11:45	H32	DS 2.5	Movement of a ripple pattern by ion beam irradiation •Paul Alkemade
12:15	H32	DS 2.6	Redeposition during ion-beam erosion Nils Anspach, Christian Diddens, Marc Osthues, •Stefan Linz
Sessions			
09:30	H32	DS 2	Focus Session: Ion Beam Induced Surface Patterns I
09:30	H3	DS 3	Multiferroics 1 (jointly with DF, KR, MA, TT)
12:15	H8	DS 4	Atomic Layer Deposition
12:15	H1	DS 5	Charge Transfer Effects in Molecular Materials I (jointly with BP, CPP, HL)
14:45	H8	DS 6	Focus Session: Ion Beam Induced Surface Patterns II
15:00	H3	DS 7	Multiferroics 2 (jointly with DF, KR, MA, TT)
15:00	H40	DS 8	Charge Transfer Effects in Molecular Materials II (jointly with BP, CPP, HL)
16:15	H8	DS 9	Ion and Electron Beam Induced Processes
17:15	H32	DS 10	Organic Electronics and Photovoltaics I (jointly with CPP, HL, O)
17:00	Poster B1	DS 11	Poster Session I: Application of thin films; Ion beam induced surface patterns; Ion and electron beam induced processes; Micro- and nanopatterning (jointly with O)
17:00	Poster B1	DS 12	Poster Session II: Functionalized semiconductor nanowires (jointly with HL); Resistive switching (jointly with DF, KR, HL); Thermoelectric materials
17:00	Poster B1	DS 13	Poster Session III: Layer properties: electrical, optical and mechanical properties; Thin film characterization: structure analysis and composition (XRD, TEM; XPS, SIMS, RBS..)
19:00	H32		Annual General Meeting of the Thin Films Division

DY

Invited Talks			
15:00	H47	DY 4.1	Environmental Superstatistics •Christian Beck
15:30	H47	DY 4.2	Statistical decomposition of atmospheric turbulence •Matthias Wächter, Allan Morales, Tanja Mücke, Nico Reinke, Joachim Peinke
16:00	H47	DY 4.3	Quantitative approaches to the statistics of extreme events in atmospheric dynamics •Holger Kantz, Jochen Broecker, Leo Granger, Julia Gundermann
16:30	H47	DY 4.4	Climate as a Problem of Non-equilibrium Statistical Mechanics •Valerio Lucarini
Sessions			
09:30	H39	DY 1	Quantum Dynamics, Decoherence and Quantum Information I
09:30	H47	DY 2	Statistical Physics in Biological Systems I (joint with BP)
15:00	H39	DY 3	Quantum Dynamics, Decoherence and Quantum Information II
15:00	H47	DY 4	Focus Session: Atmospheric and Climate Complexity
15:00	H48	DY 5	Reaction-Diffusion Systems
15:00	H34	DY 6	Glasses and Glass Transition (joint session DY/ CPP) I
17:30	Poster C	DY 7	Poster I

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DY

17:30	Poster C	DY 8	Poster I: Glasses and Glass Transition (joint session DY/DF/ CPP)
17:30	Poster B2	DY 9	Poster I: Statistical Physics in Biological Systems (joint with BP)

HL

Invited Talks, Topical Talks

09:30	H13	HL 3.1	Ultrafast processes in carbon nanotubes and quantum dots •Ulrike Woggon
10:15	H13	HL 3.3	Quantum dots – artificial atoms, molecules or small pieces of bulk? Nonadiabatic molecular dynamics in the Kohn-Sham representation. •Oleg Prezhdo, Heather Jaeger, Long Run, Amanda Neukirch, Kim Hyeon-Deuk
11:00	H13	HL 3.5	Out-of-equilibrium carrier dynamics in semiconductors: a novel approach •Andrea Marini
12:30	H13	HL 3.6	The role of phonons for exciton and biexciton generation in a quantum dot driven by adiabatic rapid passage •Tilman Kuhn
13:15	H13	HL 3.8	Spin lifetime and electron-phonon interaction in graphene •Guido Burkard
13:30	H2	HL 14.1	Complex oxides for next-generation electronics •Chris G. Van de Walle
15:00	H2	HL 15.1	Optical absorption and radiation damage in transparent conducting oxides •Andre Schleife, Friedhelm Bechstedt, Alfredo Correa, Yosuke Kanai
15:45	H2	HL 15.3	Growth from the melt of high-quality In ₂ O ₃ and Ga ₂ O ₃ single crystals •Roberto Fornari, Zbigniew Galazka, Reinhard Uecker, Klaus Irscher
16:45	H2	HL 15.5	Development of gallium oxide power devices •Masataka Higashiwaki, Kohei Sasaki, Akito Kuramata, Takekazu Masui, Shigenobu Yamakoshi
18:15	H2	HL 15.9	Surface electron accumulation layers in oxide semiconductors •Tim Veal
15:00	H17	HL 19.1	Relaxation dynamics in graphene close to the Dirac point •Stephan Winnerl

Sessions

09:30	H2	HL 2	Ultrafast phenomena
09:30	H13	HL 3	Focus Session: Electron-phonon interaction and ultrafast processes in semiconductors
09:30	H15	HL 4	III-V semiconductors: mainly wells and surfaces
09:30	H16	HL 5	Spintronics: mainly interfaces and heterostructures
09:30	H17	HL 6	Graphene: Magnetic fields (HL, jointly with O, TT)
09:30	H10	HL 7	Topological insulators 1 (MA, jointly with HL, O, TT)
09:30	H20	HL 8	Transport: Quantum dots, wires, point contacts 1 (TT, jointly with HL, O)
10:30	H36	HL 9	Focus Session: Frontiers of electronic structure theory I (O, jointly with HL, TT)
11:30	H17	HL 10	Graphene: Spin-orbit interaction (HL, jointly with O, TT)
12:00	H16	HL 11	Quantum information systems: mostly quantum dots
12:15	H1	HL 12	Charge transfer effects in molecular materials I (CPP, jointly with BP, DS, HL)
12:45	H15	HL 13	Preparation and characterization
13:30	H2	HL 14	Invited Talk: Chris van de Walle

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			HL
15:00	H2	HL 15	Focus Session: Crystalline n-type semiconducting oxides – SnO ₂ , Ga ₂ O ₃ , and In ₂ O ₃ for novel devices (HL, jointly with O)
15:30	H13	HL 16	Theory: Metal-insulator transitions / Electronic structure calculations
15:00	H15	HL 17	Interfaces and surfaces
15:00	H16	HL 18	Lasers and LEDs I
15:00	H17	HL 19	Invited Talk: Stephan Winnerl
15:00	H10	HL 20	Topological insulators 2 (MA, jointly with HL, O, TT)
15:00	H18	HL 21	Transport: Quantum dots, wires, point contacts 2 (TT, jointly with HL)
15:00	H20	HL 22	Focussed Session: Correlations in topological bands (TT, jointly with HL, MA, O)
15:00	H40	HL 23	Charge transfer effects in molecular materials II (CPP, jointly with BP, DS, HL)
16:00	H17	HL 24	Graphene: Electronic properties and transport (O, jointly with HL, TT)
16:00	H36	HL 25	Focus Session: Frontiers of electronic structure theory II (O, jointly with HL, TT)
16:45	H16	HL 26	Lasers and LEDs II
17:00	Poster B1	HL 27	Joint Poster Session: Functionalized semiconductor nanowires (DS, jointly with HL); Resistive switching (DS, jointly with DF, KR, HL)
16:00	Poster A	HL 28	Poster Session: Graphen; Transport properties; Transport in high magnetic fields / Quantum Hall effect; Metal-semiconductor hybrid systems
16:00	Poster A	HL 29	Poster Session: Spintronics; Spin-controlled transport; Topological insulators; Interfaces / Surfaces; Magnetic semiconductors
17:15	H32	HL 30	Organic electronics and photovoltaics I (DS, jointly with CPP, HL, O)

KR

			Sessions
09:30	H3	KR 1	Multiferroics 1 (MA jointly with DF, DS, KR, TT)
15:00	H3	KR 2	Multiferroics 2 (MA jointly with DF, DS, KR, TT)
15:00	H11	KR 3	Electrical and mechanical properties (DF jointly with KR)

MA

			Invited Talks, Topical Talks
09:30	H10	MA 4.1	Breaking time reversal symmetry in topological insulators •Jagadeesh Moodera
15:00	H10	MA 5.1	The THz response of topological insulator surface states •N. Peter Armitage
09:30	H22	MA 7.1	Time-of-Flight Magnetic Flow Cytometry •Michael Helou, Mathias Reisbeck, Lukas Richter, Jacobus Bosch, Roland Stauber, Eckhard Quandt, Oliver Hayden
15:00	H23	MA 10.1	Tailoring magnetic excitations in low-dimensional ferromagnets •Khalil Zakeri Lori
15:30	H23	MA 10.2	Theory of spin waves in ultrathin ferromagnetic films •Roberto Muniz, Antonio Costa
16:00	H23	MA 10.3	Magnetic excitations in all metallic nanostructures •Wulf Wulfhekel
16:30	H23	MA 10.4	Magnetization dynamics derived from excitations of single magnetic atoms on surfaces •Alexander Ako Khajetoorians

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MA

17:00	H23	MA 10.5	<p>Theory of dynamical magnetic excitations in itinerant nanomagnets</p> <ul style="list-style-type: none"> •Samir Lounis
Sessions			
09:30	H3	MA 2	Multiferroics 1 (jointly with DF,DS,KR,TT)
15:00	H3	MA 3	Multiferroics 2 (jointly with DF,DS,KR,TT)
09:30	H10	MA 4	Topological Insulators 1 (jointly with DS,HL,O,TT)
15:00	H10	MA 5	Topological Insulators 2 (jointly with DS,HL,O,TT)
15:00	H20	MA 6	Focussed Session: Correlations in Topological Bands (jointly with DS, HL, MA, and O)
09:30	H22	MA 7	Magnetic Particles in Biomedical Diagnostics and Therapy (jointly with BP, CPP, ST)
09:30	H23	MA 8	Spin Excitations and Spin Torque
15:00	H22	MA 9	Spin Caloric Transport (jointly with TT)
15:00	H23	MA 10	Focus Session: Magnetic Excitations: from surfaces down to adatoms (jointly with O)
12:15	H3	MA 11	ThyssenKrupp Electrical Steel Dissertationspreis 2013 der AG Magnetismus

MM

Invited Talks, Topical Talks			
09:30	H24	MM 1.1	<p>New opportunities and challenges in chromatic aberration corrected and in situ transmission electron microscopy</p> <ul style="list-style-type: none"> •Rafal E. Dunin-Borkowski, Lothar Houben, Juri Barthel, Andreas Thust, Chris Boothroyd, Martina Luysberg, Andras Kovacs, Martial Duchamp, Joachim Mayer
10:15	H4	MM 2.1	<p>The potential of valence electron energy-loss spectroscopy to probe local optical properties and band structure information in scanning transmission electron microscopy</p> <ul style="list-style-type: none"> •Rolf Erni
10:45	H4	MM 2.2	<p>Application of Electron Energy-Loss Spectroscopy to Study Nanostructures and Interfaces</p> <ul style="list-style-type: none"> •Christina Scheu
10:15	H25	MM 4.1	<p>Observation of kinks and antikinks in colloidal monolayers driven across periodic and quasiperiodic surfaces</p> <ul style="list-style-type: none"> •Clemens Bechinger
11:00	H25	MM 4.3	<p>Recent advances in mathematical diffraction theory</p> <ul style="list-style-type: none"> •Uwe Grimm
11:45	H4	MM 6.1	<p>Prospects for mapping spins with atomic resolution in TEM</p> <ul style="list-style-type: none"> •Johan Verbeeck
12:15	H4	MM 6.2	<p>Structural Characterization of nc-Si / SiO_x based quantum superstructures for the solar cell application by aberration-corrected high resolution electron microscopy</p> <ul style="list-style-type: none"> •Maryam Beig Mohamadi, Birger Berghoff, Joachim Mayer
12:15	H25	MM 8.3	<p>Self-assembly and packing of polyhedra into complex crystal structures</p> <ul style="list-style-type: none"> •Michael Engel, Pablo F. Damasceno, Amir Haji-Akbari, Sharon C. Glotzer
15:00	H24	MM 10.1	<p>Materials Science and Development of Complex Materials</p> <ul style="list-style-type: none"> •Jan Schroers
15:45	H4	MM 11.1	<p>Scanning transmission electron microscopy at atomic resolution</p> <ul style="list-style-type: none"> •Ferdinand Hofer, Gerald Kothleitner, Werner Grogger

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MM

Sessions

09:30	H24	MM 1	Invited Talk: Dunin-Borkowski
10:15	H4	MM 2	Topical Session: TEM-Symposium – Joint Session with MI I
10:15	H24	MM 3	Computational Materials Modelling – Fundamentals
10:15	H25	MM 4	Topical Session: Quasicrystals & Complex Metallic Alloys I
10:15	H26	MM 5	Functional Materials – Battery Materials I
11:45	H4	MM 6	Topical Session: TEM-Symposium – Joint Session with MI II
11:45	H24	MM 7	Computational Materials Modelling – Methods
11:45	H25	MM 8	Topical Session: Quasicrystals & Complex Metallic Alloys II
11:45	H26	MM 9	Functional Materials – Battery Materials II
15:00	H24	MM 10	Invited Talk: Schroers
15:45	H4	MM 11	Topical Session: TEM-Symposium – STEM
15:45	H24	MM 12	Computational Materials Modelling – Mechanical Properties
15:45	H25	MM 13	Topical Session: Quasicrystals & Complex Metallic Alloys III
15:45	H26	MM 14	Functional Materials – Hydrogen
18:00	Poster E	MM 15	Poster Session

MI

Invited Talk

15:15	H5	MI 4.1	Advanced IC failure analysis •Frank Altmann, Michél Simon-Najasek, Jörg Jatzkowski
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Sessions

10:15	H4	MI 1	Topical Session: Using Transmission Electron Microscopy to Unravel the Mysteries of Materials I – Joint Session with MM
11:45	H4	MI 2	Topical Session: Using Transmission Electron Microscopy to Unravel the Mysteries of Materials II – Joint Session with MM
14:00	H1	MI 3	Plenary Talk Pennycook (PV II)
15:15	H5	MI 4	Analytische Elektronenmikroskopie

O

Invited Talks, Topical Talk

09:30	H36	O 1.1	Exciton fission, quantum coherence, & solar energy conversion beyond the limit •Xiaoyang Zhu
10:30	H36	O 5.1	Fully ab initio determination of free energies: Basis for high-throughput approaches in materials design •Jörg Neugebauer, Fritz Kormann, Martin Friak, Blazej Grabowski, Timann Hickel
15:00	H36	O 12.1	Interaction of Gas Phase Molecules with Nanostructured Model Supported Catalysts: Thermodynamics and Kinetics •Swetlana Schauer mann

Sessions

09:30	H36	O 1	Invited Talk: Xiaoyang Zhu
09:30	H10	O 2	Topological Insulators 1 (jointly with DS, HL, MA, TT)
09:30	H17	O 3	Graphene: Magnetic Fields (jointly with DS, HL, MA, and TT)
09:30	H20	O 4	Transport: Quantum Dots, Wires, Point Contacts 1 (jointly with HL and TT)
10:30	H36	O 5	Focussed Session: Frontiers of Electronic Structure Theory I (jointly with HL and TT)

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O

10:30	H38	O 6	Organic/bio Molecules on Metal Surfaces I
10:30	H31	O 7	Plasmonics and Nanooptics I
10:30	H33	O 8	Surface Chemical Reactions and Heterogeneous Catalysis I
10:30	H42	O 9	Nanotribology
10:30	H45	O 10	Nanostructures at Surfaces I
11:30	H17	O 11	Graphene: Spin-orbit interaction (jointly with DS, HL, MA, and TT)
15:00	H36	O 12	Invited Talk: Swetlana Schauer mann
15:00	H2	O 13	Focus Session: Crystalline n-type semiconducting oxides – SnO ₂ , Ga ₂ O ₃ , and In ₂ O ₃ for novel devices (jointly with HL)
15:00	H10	O 14	Topological Insulators 2 (jointly with DS, HL, MA, TT)
15:00	H20	O 15	Focussed Session: Correlations in Topological Bands (jointly with DS, HL, MA, and TT)
15:00	H23	O 16	Magnetic Excitations: from surfaces down to adatoms (jointly with MA)
16:00	H36	O 17	Focussed Session: Frontiers of Electronic Structure Theory II (jointly with HL and TT)
16:00	H38	O 18	Organic/bio Molecules on Metal Surfaces II
16:00	H31	O 19	Plasmonics and Nanooptics II
16:00	H33	O 20	Surface Chemical Reactions and Heterogeneous Catalysis II
16:00	H42	O 21	Electronic Structure and Spin-Orbit Interaction I
16:00	H45	O 22	Nanostructures at Surfaces II
16:00	H17	O 23	Graphene: Electronic Properties and Transport (jointly with HL, MA and TT)
17:15	H32	O 24	Organic Electronics and Photovoltaics I (jointly with CPP, DS, HL)

SOE

			Prize Talk, Invited Talk
16:00	H37	SOE 7.1	Mind the gap: What can economics, social insects and statistical physics learn from each other? •Alan Kirman
17:00	H37	SOE 7.2	Fighting infectious diseases in a complex world •Vittoria Colizza (Laureate of the Young Scientist Award for Socio- and Econophysics)
			Sessions
09:30	H37	SOE 1	Risks and Large Deviations in Economic Networks I
10:00	H37	SOE 2	Financial Markets and Risk Management I
10:45	H37	SOE 3	Financial Markets and Risk Management II
11:30	H37	SOE 4	Economic Growth and Longevity I
14:00	H15	SOE 5	Plenary Talk Sidney Redner
15:00	H37	SOE 6	Economic Models
16:00	H37	SOE 7	YSA Award Ceremony: Young Scientist Award for Socio- and Econophysics

TT

			Invited Talks, Topical Talks
16:45	H19	TT 17.7	Magnetic Frustration in a Quantum Spin Chain: The Case of Linarite PbCuSO ₄ (OH) ₂ •Anja U.B. Wolter, Markus Schäpers, Ferdinand Lipps, Vladik Kataev, Satoshi Nishimoto, Stefan-Ludwig Drechsler, Bernd Büchner, Rico Beyer,

Monday, March 11, 2013

TT

			Marc Uhlarz, Jochen Wosnitza, Britta Willenberg, Manfred Reehuis, Kirrily C. Rule, Bachir Ouladdiaf, Stefan Söllow
15:00	H20	TT 18.1	Designer Dirac Fermions, Topological Phases, and Gauge Fields in Molecular Graphene •Hari C. Manoharan
15:30	H20	TT 18.2	Fractional Topological Insulators •Claudio Chamon, Christopher Mudry, Titus Neupert, Luiz Santos
16:00	H20	TT 18.3	Hierarchy of Fractional Chern Insulators and Competing Compressible States •Andreas Läuchli
16:45	H20	TT 18.4	Designing Topological Bands for Ultracold Atomic Gases •Nigel Cooper
17:15	H20	TT 18.5	Probing Topological Bloch Bands Using Ultracold Quantum Gases •Immanuel Bloch
Sessions			
09:30	H3	TT 2	Multiferroics 1 (jointly with DF, DS, KR, and MA)
09:30	H9	TT 3	Correlated Electrons: Low-Dimensional Systems – Models 1
09:30	H10	TT 4	Topological Insulators 1 (jointly with DS, HL, MA, and O)
09:30	H17	TT 5	Graphene – Magnetic Fields (jointly with DS, HL, MA, O)
09:30	H18	TT 6	Superconductivity: Tunnelling & Josephson Junctions
09:30	H19	TT 7	Correlated Electrons: Spin Systems, Itinerant Magnets 1
09:30	H20	TT 8	Transport: Quantum Dots, Wires, Point Contacts 1 (jointly with HL and O)
09:30	H21	TT 9	Quantum Liquids, Miscellaneous 1
10:30	H36	TT 10	Focussed Session: Frontiers of Electronic Structure Theory 1 (jointly with HL and O)
11:30	H17	TT 11	Graphene-Spin-Orbit Interaction (jointly with DS,HL,MA,O)
15:00	Poster D	TT 12	Poster Session Superconductivity
15:00	H3	TT 13	Multiferroics 2 (jointly with DF, DS, KR, and MA)
15:00	H9	TT 14	Correlated Electrons: Low-Dimensional Systems – Models 2
15:00	H10	TT 15	Topological Insulators 2 (jointly with DS, HL, O, and MA)
15:00	H18	TT 16	Transport: Quantum Dots, Wires, Point Contacts 2 (jointly with HL)
15:00	H19	TT 17	Correlated Electrons: Spin Systems, Itinerant Magnets 2
15:00	H20	TT 18	Focussed Session: Correlations in Topological Bands (jointly with DS, HL, MA, and O)
15:00	H21	TT 19	Quantum Liquids, Miscellaneous 2
15:00	H22	TT 20	Transport: Spin-caloric Transport (jointly with MA)
16:00	H17	TT 21	Graphene – Electronic Properties and Transport 1 (jointly with DS, HL, MA, and O)
16:00	H36	TT 22	Focussed Session: Frontiers of Electronic Structure Theory 2 (jointly with HL and O)
16:45	H21	TT 23	Superconductivity: Fe-based Superconductors – 1111

VA

Invited Talks

10:00	H6	VA 1.1	The Birth of a New Turbo-Molecular Pump •Martin Tollner
11:00	H6	VA 1.3	Redefinition of a 60 years old barrier: simple Bayard-Alpert gauge beats the X-ray limit Jaroslaw Iwicki, Marco Walter, Heiko Wunderlich, •Michael Flämmich, Ute Bergner

Monday, March 11, 2013

				VA
14:00	H6	VA 2.1	Transient rarefied gas flow through short channels at arbitrary pressure ratios •Stylianios Varoutis, Christian Day	
			Sessions	
10:00	H6	VA 1	Future Requirements on Vacuum Pumps and Vacuum Gauges	
14:00	H6	VA 2	Transient rarefied Gas Flow through short Channels	
14:40	H6	VA 3	Desorption	
15:00	H6	VA 4	Vacuum Systems and Tools	

AGJDPG

			Session	
15:30	H44	AGJDPG 1	Publishing in the Age of the Internet (joint with BP)	

Tuesday, March 12, 2013

			Plenary Talks, Prize Talk	
08:30	H1	PV IV	Majorana Fermions in Semiconductor Nanowires •Leo Kouwenhoven	
13:15	H1	PV V	Critical Quasi-particles and Scaling of Metals Near a Quantum Critical Point: a Strong Coupling Scenario. •Peter Woelfle (Laureate of the Gentner-Kastler-Prize)	
14:00	H1	PV VI	The Thin-Disk Laser – from Physics to Industrial Applications •Thomas Graf	
14:00	H15	PV VII	Self-assembly, Self-organization and Control of Colloidal Suspensions •Sabine H. L. Klapp	
16:15	H1		Ceremonial Session with Award Ceremony	
17:20	H1	PV VIII	Ceremonial Session Invited Talk Beyond Graphene: Electronic Properties of Van der Waals Heterostructures •Andre Geim	

SYSC

			Invited Talks	
09:30	H1	SYSC 1.1	Exploring the Physics of Superconducting Qubits Strongly Coupled to Microwave Frequency Photons •Andreas Wallraff	
10:00	H1	SYSC 1.2	Hybrid Quantum Circuit with a Superconducting Qubit Coupled to an Electron Spin Ensemble •Yuimaru Kubo, Cecile Grezes, Igor Diniz, Jun-ichi Isoya, Vincent Jacques, Anais Dreau, Jean-François Roch, Alexia Auffeves, Denis Vion, Daniel Esteve, Patrice Bertet	

Tuesday, March 12, 2013

SYSC

10:30	H1	SYSC 1.3	Hybrid Quantum Systems with Rare-Earth Ion Spin Ensemble •Pavel Bushev
11:00	H1	SYSC 1.4	Quantum Coherent Coupling between a Mechanical Oscillator and an Optical Mode Ewold Verhagen, Dalziel Wilson, Vivishek Sudhir, Nicolas Piro, Albert Schliesser, •Tobias Kippenberg
11:30	H1	SYSC 1.5	Exploring Quantum Light-Matter Interactions of Quantum Dots in Photonic Crystal Nanostructures •Jonathan Finley, Arne Laucht, Michael Kaniber, Stefan Lichtmannecker, Thorsten Reichert, Guenther Reithmaier, Fabrice Laussy, Ulrich Hoheneuster
Session			
09:30	H1	SYSC 1	Strong Coupling in Solid State Quantum Systems (SYSC)

BP

Invited Talks, Topical Talks			
09:30	H43	BP 12.1	Motor and Track Systems for Navigating the Cytoskeleton Joanna Kalita, •Ronald Rock
11:15	H43	BP 12.7	Molecular Motors from DNA •Andrew Turberfield
09:30	H44	BP 13.1	Ultrasensitive detection, microscopy, tracking, and manipulation of nano-objects •Vahid Sandoghdar
12:00	H43	BP 15.1	Protein diffusion on DNA •Ralf Seidel
Sessions			
09:30	H43	BP 12	Molecular Motors
09:30	H44	BP 13	Imaging
09:30	H34	BP 14	Biomaterials and Biopolymers I (joint with CPP)
12:00	H43	BP 15	DNA/RNA and related enzymes
15:00	H37	BP 16	Evolutionary Game Theory (joint with SOE and DY)

CPP

Invited Talks			
09:30	H34	CPP 13.1	Hierarchical Multi-Step Folding of Polymer Bilayers Georgi Stoychev, Sebastien Turcaud, John Dunlop, •Leonid Ionov
09:30	H40	CPP 16.1	Functional nanolayers made from colloidal building blocks •Andreas Fery
Sessions			
09:30	H34	CPP 13	Biomaterials and Biopolymers I (joint session CPP/BP)
09:30	H39	CPP 14	Crystallization, Nucleation and Self Assembly I
09:30	H32	CPP 15	Organic Electronics and Photovoltaics II (joint session DS/ CPP/HL/O)
09:30	H40	CPP 16	Interfaces and Thin Films II (joint session with DECHEMA and VDI)
09:30	H46	CPP 17	Glasses II (joint session DY/DF/ CPP)
18:15	Poster C	CPP 18	Poster: Polymer Dynamics
18:15	Poster C	CPP 19	Poster: Crystallization, Nucleation and Self Assembly
18:15	Poster C	CPP 20	Poster: Colloids and Complex Liquids

Tuesday, March 12, 2013

DF**Sessions**

09:30	H11	DF 10	Optical and nonlinear optical properties, photonic
09:30	H46	DF 11	Glasses II (joint session with CPP, DY)
10:30	Poster D	DF 12	Poster 1
14:00	H1	DF 13	PV VI

DS**Invited Talks, Topical Talks**

09:30	H8	DS 14.1	Nanowire photovoltaics with absorption beyond the ray optics limit •Magnus T Borgström
10:00	H8	DS 14.2	Crystal structure control in nanowires •Erik Bakkers
10:30	H8	DS 14.3	Spectral and spatial overlap of oxide quantum wells and whispering gallery modes •Marius Grundmann
11:15	H8	DS 14.4	Semiconducting Nanowire Heterostructures on Silicon – From Growth to Devices Heinz Schmid, Kirsten Moselund, Cedric Bessire, Pratyush Das Kanungo, Philipp Mensch, Siegfried Karg, Mattias Borg, Volker Schmidt, •Heike Riel
11:45	H8	DS 14.5	III-nitride nanowires: From growth phenomena to light-emitting diodes •Raffaella Calarco
12:15	H8	DS 14.6	3D GaN nanorods: fabrication, properties, applications •Andreas Waag, Johannes Ledig, Xue Wang, Milena Erenburg, Jana Hartmann, Lorenzo Caccamo, Matin Mohajerani, Manal Ali Deeb, Jiandong Wei, Martin Hoffmann, Hao Shen, Hergo-Heinrich Wehmann

Sessions

09:30	H8	DS 14	Focus Session: Functionalized Semiconductor Nanowires I (jointly with HL)
09:30	H32	DS 15	Organic Electronics and Photovoltaics II (jointly with CPP, HL, O)
14:45	H32	DS 16	Organic Thin Films I

DY**Invited Talks**

15:00	H44	DY 14.1	When the beat goes off •Holger Hennig
15:30	H44	DY 14.2	Chimera states and the transition from spatial coherence to incoherence •Philipp Hövel

Sessions

09:30	H46	DY 10	Glasses (joint session DY/DF/ CPP)
09:30	H47	DY 11	Statistics and Dynamics of/on Networks (joint session BP/DY/SOE)
09:30	H48	DY 12	Nonlinear Dynamics, Synchronization and Chaos I
09:30	H1	DY 13	Symposium: Strong Coupling in Solid State Quantum Systems (SYSC)
15:00	H44	DY 14	Nonlinear Dynamics, Synchronization and Chaos II
15:00	H37	DY 15	Evolutionary Game Theory (joint session BP/DY/SOE)

Tuesday, March 12, 2013

HL

Invited Talks, Topical Talks

09:30	H2	HL 31.1	Localization at graphene system and topological insulator edges •Markus Buttiker
10:00	H2	HL 31.2	Controlling Quantized Edge Transport in Two-dimensional Topological Insulators Viktor Krueckl, Sven Essert, •Klaus Richter
10:30	H2	HL 31.3	First-principles studies of Dirac-cones in graphene and 3D topological insulators •Gustav Bihlmayer
11:15	H2	HL 31.4	Lifetime broadening of topological surface states with and without magnetic moments •Oliver Rader, Markus Scholz, Jaime Sánchez-Barriga, Andrei Varykhalov, Dmitry Marchenko, Emile Rienks, Andrey Volykhov, Lada Yashina
11:45	H2	HL 31.5	Transport in topological insulators – experiments •Christoph Brüne
09:30	H13	HL 33.1	Acoustic nanoquakes dynamically control optical nanosystems •Hubert Krenner
12:30	H2	HL 42.1	MBE growth of topological insulator films and ARPES measurements •Gregor Mussler, Jörn Kampmeier, Svetlana Borisova, Detlev Grützmacher
15:00	H2	HL 43.1	Single phonon quantum interference and back-action in quantum-dot electrical circuits Ghislain Granger, Daniela Taubert, Carolyn Young, L. Gaudreau, A. Kam, S. Studenikin, D. Harbusch, Dieter Schuh, Werner Wegscheider, Zbigniew Wasilew, Aashish Clerk, Andrew Sachrajda, •Stefan Ludwig
15:30	H2	HL 47.1	Compact physics-based modeling of semiconductor devices for circuit •Mitiko Miura-Mattausch

Sessions

09:30	H2	HL 31	Focus Session: Dirac fermions in solid-state systems (HL, jointly with TT)
09:30	H3	HL 32	Spintronics and magnetic semiconductors (MA, jointly with HL)
09:30	H13	HL 33	Invited Talk: Hubert Krenner
09:30	H15	HL 34	Quantum dots and wires: Theory
09:30	H17	HL 35	Graphene: Transport (TT, jointly with HL, MA, O)
09:30	H8	HL 36	Focus Session: Functionalized semiconductor nanowires I (DS, jointly with HL)
09:30	H20	HL 37	Transport: Quantum dots, wires, point contacts 3 (TT, jointly with HL)
09:30	H32	HL 38	Organic electronics and photovoltaics II (DS, jointly with CPP, HL, O)
10:15	H13	HL 39	Optical properties
10:30	H36	HL 40	Focus Session: Frontiers of electronic structure theory III (O, jointly with HL, TT)
11:15	H15	HL 41	Quantum dots and wires: Preparation and characterization
12:30	H2	HL 42	Invited Talk: Gregor Mussler
15:00	H2	HL 43	Invited Talk: Stefan Ludwig
15:00	H3	HL 44	Photonic crystals
15:00	H13	HL 45	Transport in high magnetic fields / Quantum Hall effect
15:00	H15	HL 46	III-V semiconductors: mainly wires and dots
15:30	H2	HL 47	Invited Talk: Mitiko Miura-Mattausch

Tuesday, March 12, 2013

KR

09:30 H5 KR 4 **Session**
Quantitative Materialanalyse (MI jointly with KR)

MA

Invited Talks, Topical Talks

09:30 H10 MA 12.1 Ultrafast magnetization enhancement in metallic multilayers driven by superdiffusive spin current
•Roman Adam, Chan La-O-Vorakiat, Marco Battiato, Dennis Rudolf, Justin M. Shaw, Emrah Turgut, Pablo Maldonado, Stefan Mathias, Patrik Grychtol, Hans T. Nembach, Thomas J. Silva, Martin Aeschlimann, Henry C. Kapteyn, Margaret M. Murnane, Claus M. Schneider, Peter M. Oppeneer

10:00 H10 MA 12.2 New frontiers of ultrafast spin manipulation: femtosecond spin superdiffusion
•Marco Battiato

10:30 H10 MA 12.3 Engineering of terahertz spin currents in magnetic heterostructures
•T. Kampfrath, M. Battiato, P. Maldonado, G. Eilers, J. Nötzold, S. Mährlein, V. Zbarsky, I. Radu, F. Freimuth, Y. Mokrousov, S. Blügel, M. Wolf, P. M. Oppeneer, M. Münzenberg

11:00 H10 MA 12.4 Ultrafast spin dynamics induced by laser-generated spin currents in metallic multilayers probed by non-linear magneto-optics
•Alexey Melnikov

11:30 H10 MA 12.5 Ultra-fast spin currents in transparent magnetic tunnel junctions
•Andy Thomas

09:30 H22 MA 17.1 Magnetometry to identify the origin of printed documents
•Anna S. Semisalova, Vladimir N. Nikiforov, Nikolai S. Perov

09:30 H16 MA 18.1 Skyrmions in magnets
•Maxim Mostovoy

10:00 H16 MA 18.2 Experimental studies of skyrmions in chiral magnets
•Christian Pfleiderer

11:15 H16 MA 18.5 Topological Defects and Quantum Computing
•Simon Trebst

11:45 H16 MA 18.6 Cosmic strings in multiferroics
•Nicola Spaldin

12:45 H16 MA 18.8 Topological physics: from quantum Hall Skyrmions to optical Chern lattices
•Roderich Moessner

13:15 H16 MA 18.9 Magnetricity and Magnetic Monopoles in Spin ice
•Steve Bramwell

Sessions

09:30 H10 MA 12 Focus Session: Terahertz Spintronics

09:30 H17 MA 13 Graphene – Electronic Properties and Transport 2 (jointly with DS, HL, MA, and O)

09:30 H23 MA 14 Micromagnetic Simulation and Electron Theory of Magnetism

09:30 H3 MA 15 Spintronics and Magnetic Semiconductors (jointly with HL)

10:30 Poster D MA 16 Poster I

09:30 H22 MA 17 Magnetic Particles and Clusters (jointly with CPP, BP)

09:30 H16 MA 18 Topological Defects in Magnetic Materials: from Devices to Cosmos (PhD-Student Symposium jointly with jDPG)

10:30 H33 MA 19 Surface and Interface Magnetism I (jointly with O)

Tuesday, March 12, 2013

MM

Invited Talk, Topical Talks

09:30	H24	MM 16.1	Combinatorial approach to multifunctional materials •Ichiro Takeuchi
10:15	H4	MM 17.1	Quantification of sample properties by low-energy scanning transmission electron microscopy Erich Müller, Holger Blank, Marina Pfaff, Tobias Volkenandt, •Dagmar Gerthsen
10:15	H25	MM 19.1	Development of new materials using high-throughput thin film experimentation and up-scaling •Alfred Ludwig
10:45	H25	MM 19.2	A combinatorial approach to the synthesis of novel oxide and oxinitride thin films •Michael Stüber, Stefanie Spitz, Harald Leiste, Sven Ulrich
12:30	H4	MM 21.4	Surface plasmon coupling studies through near-field mapping of electromagnetic modes in electron microscopy Burcu Ögüt, Nahid Talebi, Wilfried Sigle, Ralf Vogelgesang, •Peter A. van Aken
11:45	H25	MM 23.1	A combinatorial materials science approach to the development of new functional thin film materials •Ulf Jansson, Fang Mao, Tomas Nyberg, Urban Wiklund, Mattias Klintonberg
15:00	H4	MM 25.1	Modern Transmission Electron Microscopy in Energy Materials Research •Erdmann Spiecker
15:00	H25	MM 27.1	Bulk Combinatorial Design of nanostructured steels: from composition to mechanisms Hauke Springer, Ivan Gutierrez-Urrutia, Jae-Bok Seol, Tilmann Hickel, Martin Friak, Jörg Neugebauer, •Dierk Raabe
15:30	H25	MM 27.2	Combinatorics of RuO ₂ based thermoelectrics •Denis Music, Felix Basse, Jochen Schneider

Sessions

09:30	H24	MM 16	Invited Talk: Takeuchi
10:15	H4	MM 17	Topical Session: TEM-Symposium – HR Imaging & Analytic I
10:15	H24	MM 18	Computational Materials Modelling – Phase Stability I
10:15	H25	MM 19	Topical Session: Combinatorial Materials Science I
10:15	H26	MM 20	Transport & Diffusion I
11:45	H4	MM 21	Topical Session: TEM-Symposium – HR Imaging & Analytic II
11:45	H24	MM 22	Computational Materials Modelling – Phase Stability II
11:45	H25	MM 23	Topical Session: Combinatorial Materials Science II
11:45	H26	MM 24	Transport & Diffusion II
15:00	H4	MM 25	Topical Session: TEM-Symposium – Structure-Property
15:00	H24	MM 26	Computational Materials Modelling – Diffusion & Kinetics I
15:00	H25	MM 27	Topical Session: Combinatorial Materials Science III
15:00	H26	MM 28	Transport & Diffusion III

MI

Invited Talk

09:30	H5	MI 5.1	Quantitative Röntgenspektrometrie für die Analyse nanostrukturierter Materialien •Matthias Müller, Burkhard Beckhoff, Philipp Hönicke, Beatrix Pollakowski, Cornelia Streeck, Rainer Unterumsberger
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Tuesday, March 12, 2013

MI

09:30	H5	MI 5	Session Quantitative Materialanalyse (mit KR)
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			Invited Talks, Topical Talk
09:30	H36	O 25.1	Flippable charge, magnetic, and orbital modulation at ferroelectric/manganite interfaces from first principles •Sohrab Ismail-Beigi
10:30	H36	O 28.1	Materials for Alternative Energies: Computational Materials Discovery and Crystal Structure Prediction •Chris Wolverton
15:00	H36	O 34.1	Ultrafast Spin and Magnetization Dynamics and their Signatures in the Transient Band Structure •Martin Weinelt
			Sessions
09:30	H36	O 25	Invited Talk:Sohrab Ismail-Beigi
09:30	H17	O 26	Transport: Graphene – Electronic Properties and Transport 2 (jointly with DS, HL, MA, and TT)
09:30	H32	O 27	Organic Electronics and Photovoltaics II (jointly with CPP, DS, HL)
10:30	H36	O 28	Focussed Session: Frontiers of Electronic Structure Theory III (jointly with HL and TT)
10:30	H38	O 29	Organic/bio Molecules on Metal Surfaces III
10:30	H31	O 30	Plasmonics and Nanooptics III
10:30	H33	O 31	Surface and Interface Magnetism I (jointly with MA)
10:30	H42	O 32	Metal Substrates I
10:30	H45	O 33	Nanostructures at Surfaces III
15:00	H36	O 34	Invited Talk (Martin Weinelt)
18:15	Poster B1	O 35	Poster Session I: Metal, semiconductor and oxide substrates: structure and adsorbates; Graphene
18:15	Poster B2	O 36	Poster Session II Organic films and electronics, photoorganics; Nanostructures; Plasmonics and nanooptics, Surface chemical reactions and heterogeneous catalysis, Surface dynamics

SOE

			Invited Talks
09:30	H37	SOE 8.1	Distributed sensing and decision-making in animal and human collectives •Iain Couzin
12:00	H37	SOE 13.1	The Complexity, Simplicity, and Unity of Living Systems from Cells to Cities; A Physicist's Search for Unifying Theories of Biological and Social Structure and Dynamics •Geoffrey West
			Sessions
09:30	H37	SOE 8	Decision-making in societies (Invited Talk: Iain Couzin)
09:30	H47	SOE 9	Statistics and Dynamics of/on Networks (joint session BP/DY/SOE)
10:15	H37	SOE 10	Opinion Formation I
11:15	H37	SOE 11	Opinion Formation II
11:45	H37	SOE 12	Risks and Large Deviations in Economic Networks II

Tuesday, March 12, 2013

SOE

12:00 H37 SOE 13 Economic Growth and Longevity II (Invited Talk: Geoffrey West)
15:00 H37 SOE 14 Evolutionary Game Theory (joint with BP and DY)

TT

Invited Talk, Topical Talks

11:15 H9 TT 25.7 One-dimensional fermion systems beyond the Luttinger Liquid paradigm
•Thomas L. Schmidt, Adilet Imambekov, Leonid I. Glazman
09:30 H18 TT 27.1 Hydrostatic-Pressure Tuning of Magnetic, Nonmagnetic and Superconducting States in Annealed $\text{Ca}(\text{Fe}_{1-x}\text{Co}_x)_2\text{As}_2$
•Elena Gati, Sebastian Köhler, Daniel Guterding, Bernd Wolf, Stephan Knöner, Sheng Ran, Sergey L. Bud'ko, Paul C. Canfield, Michael Lang
10:30 H20 TT 29.5 Nano-Conductors as Measurement Devices and Driving Sources
•Sigmund Kohler

Sessions

09:30 H2 TT 24 Focussed Session: Dirac Fermions in Solid-State Systems (jointly with HL)
09:30 H9 TT 25 Correlated Electrons: Low-Dimensional Systems – Models 3
09:30 H17 TT 26 Graphene – Electronic Properties and Transport 2 (jointly with DS, HL, MA, and O)
09:30 H18 TT 27 Superconductivity: Fe-based Superconductors – 122
09:30 H19 TT 28 Correlated Electrons: Spin Systems, Itinerant Magnets 3
09:30 H20 TT 29 Transport: Quantum Dots, Wires, Point Contacts 3 (jointly with HL)
09:30 H21 TT 30 Correlated Electrons: Quantum Impurities, Kondo Physics
09:30 H41 TT 31 Correlated Electrons: Low-Dimensional Systems -Materials 1
10:30 H36 TT 32 Focussed Session: Frontiers of Electronic Structure Theory 3 (jointly with HL and O)

AGJDPG

09:30 H16 AGJDPG 2 **Session**
Topological Defects in Magnetic Materials: from Devices to Cosmos (PhD-Student Symposium jointly with MA)

09:00 Foyer, Gallery, H6, RW Bldg. Exhibition of Scientific Instruments and Literature

Wednesday, March 13, 2013

Plenary Talks, Prize Talk			
08:30	H1	PV IX	Mechanics and dynamics of rapid cell movement •Julie Theriot
13:15	H1	PV X	Metallic Nanostructures in Strong Light Fields: Phenomena and Applications •Claus Ropers (Laureate of the Walter-Schottky-Prize)
14:00	H1	PV XI	Magnetic Monopoles in Spin Ice •Roderich Moessner
14:00	H15	PV XII	Novel Strategies for the Assembly of Quasicrystals: Epitaxial Growth of Three-dimensional Nanoporous Frameworks •Christof Wöll

SYQP

Invited Talks			
15:00	H1	SYQP 1.1	Quantum plasmonics and applications in light harvesting •Peter Nordlander
15:30	H1	SYQP 1.2	Deterministic quantum plasmonics with single nanodiamonds •Serge Huant, Oriane Mollet, Aurelien Cuche, Aurelien Drezet
16:00	H1	SYQP 1.3	Optically-active hybrid nanostructures: Exciton-plasmon interaction, Fano effect, and plasmonic chirality •Alexander Govorov
17:00	H1	SYQP 1.4	Quantum nano-optics: Interaction of metallic nano-particles with quantum emitters •Salvatore Savasta
17:30	H1	SYQP 1.5	Non-dipolar & magnetic interactions with optical antennas Alberto Curto, Martin Kuttge, Marta Castro-López, Ion Hancu, Tim Taminiau, •Niek van Hulst
Session			
15:00	H1	SYQP 1	Quantum Plasmonics (SYQP)

SYTS

Invited Talks			
09:30	H1	SYTS 1.1	Transport in Old and New Thermoelectric Materials •David Singh
10:00	H1	SYTS 1.2	Binary oxide structures as model systems for thermoelectric transport •Peter J. Klar, Christian Heiliger
10:30	H1	SYTS 1.3	Functional oxides films: from single crystals to polycrystalline substrates •Wilfrid Prellier
11:00	H1	SYTS 1.4	The Planar Nernst Effect and the Search for Thermal Spin Currents in Ferromagnetic Metals •Barry Zink
11:30	H1	SYTS 1.5	Tunneling magneto thermopower in magnetic tunnel junction nanopillars Niklas Liebing, Santiago Serrano-Guisan, Patryk Krzysteczko, Karsten Rott, Günter Reiss, Jürgen Langer, Berthold Ocker, •Hans Werner Schumacher
Session			
09:30	H1	SYTS 1	Thermoelectric and Spin-caloric Transport in Nanostructures

Wednesday, March 13, 2013

BP

Invited Talks, Topical Talks

09:30	H43	BP 17.1	Processing of recombinant proteins for biomaterials applications: about spider silk and more •Thomas Scheibel
09:30	H44	BP 18.1	Out-of-equilibrium membrane physics and cellular organelles •Pierre Sens
15:00	H43	BP 20.1	Challenges of Neurophysics •Theo Geisel
15:00	H46	BP 21.1	Mimicking cellular membranes: lessons from reconstitution •Eva Schmid

Sessions

09:30	H43	BP 17	Biomaterials and Biopolymers II (joint with CPP)
09:30	H44	BP 18	Membranes and Vesicles I
09:30	H37	BP 19	Focus Session: Dynamics of Adaptive Networks (joint with SOE and DY)
15:00	H43	BP 20	Statistical Physics in Biological Systems II (joint with DY)
15:00	H46	BP 21	Membranes and Vesicles II
15:00	H6	BP 22	Biomechanics (joint focus session with jDPG)
15:45	H37	BP 23	Networks, From Topology to Dynamics (joint with SOE and DY)
17:30	Poster C	BP 24	Posters: Physics of Cells
17:30	Poster C	BP 25	Posters: Cytoskeleton
17:30	Poster C	BP 26	Posters: Biomaterials and Biopolymers (joint with CPP)
19:00	H43		Annual General Meeting of the Biological Physics Division

CPP

Invited Talks

09:30	H34	CPP 22.1	Liquid drops on soft solids •Jacco Snoeijer
11:30	H34	CPP 22.7	Wetting transitions in polymer decorated nanostructured surfaces •Jürgen Rühle
09:30	H39	CPP 23.1	Polymers, rings and pores: A neutron scattering study •Andreas Wischniewski
09:30	H40	CPP 24.1	Factors determining the contact resistance in organic thin-film transistors Manfred Gruber, •Egbert Zojer, Ferdinand Schürerer, Karin Zojer
15:00	H34	CPP 26.1	Leidenfrost Dynamics •David Quéré
15:00	H40	CPP 28.1	Self Organization of Colloidal Crystals and of Co-operative Propulsion by Salt Gradient Induced Flows •Thomas Palberg

Sessions

09:30	H2	CPP 21	Transport: Molecular Electronics (joint session TT/ CPP/HL/MA)
09:30	H34	CPP 22	Focus Session: Wetting on smooth and rough surfaces: From spreading to superhydrophobicity I
09:30	H39	CPP 23	Polymer Dynamics
09:30	H40	CPP 24	Organic Semiconductors
09:30	H43	CPP 25	Biomaterials and Biopolymers II (joint session BP/ CPP)
15:00	H34	CPP 26	Focus Session: Wetting on smooth and rough surfaces: From spreading to superhydrophobicity II
15:00	H39	CPP 27	Nanoparticles and Composite Materials II

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CPP

15:00	H40	CPP 28	Crystallization, Nucleation and Self Assembly II
16:00	H33	CPP 29	Organic Electronics and Photovoltaics III (joint session O/CPP/DS/HL)
16:30	Poster C	CPP 30	Poster: Wetting on smooth and rough surfaces: From spreading to superhydrophobicity
16:30	Poster C	CPP 31	Poster: Organic Electronics and Photovoltaics (joint session DS/HL/O/CPP)
16:30	Poster C	CPP 32	Poster: Organic Semiconductors
16:30	Poster C	CPP 33	Poster: Charged Soft Matter
16:30	Poster C	CPP 34	Poster: Wetting, Micro and Nano Fluidics
16:30	Poster C	CPP 35	Poster: Biomaterials and Biopolymers (joint session BP/CPP)
16:30	Poster C	CPP 36	Poster: (Hydro)gels and Elastomers
16:30	Poster C	CPP 37	Poster: Focus: Van der Waals at soft matter interfaces: structure and dynamics
19:00	H34		Annual General Meeting of the Chemical and Polymer Physics Division

DF

Sessions

09:30	H1	DF 14	Thermoelectric and Spin-caloric Transport in Nanostructures
09:30	H11	DF 15	High- and low-k-dielectrics (joint session with DS)
10:40	H11	DF 16	Dielectric and ferroelectric thin films
12:30	H11	DF 17	Glasses III (joint session with CPP, DY)
12:30	H9	DF 18	Nanostructured oxide thermoelectrics
15:00	Poster B2	DF 19	Poster 2
18:00	H11		Annual General Meeting of the Dielectric Solids Division

DS

Invited Talks, Topical Talks, Prize Talk

09:30	H32	DS 17.1	Meso-Superstructured Perovskite Solar Cells •Henry J. Snaith
10:00	H32	DS 17.2	Thermoelectric perovskite-type oxides and Heusler phases •Anke Weidenkaff, Sascha Populoh, Leyre Sagarna, Gesine Saucke, Andrey Shkabko, Nina Vogel
10:30	H32	DS 17.3	Photoelectrochemical Water Splitting with Complex Metal Oxides: the Role of Defects •Roel van de Krol
11:15	H32	DS 17.4	Intrinsic point defects in CuInSe_2 and CuGaSe_2 studied by screened-exchange hybrid density functional theory •Karsten Albe, Johan Pohl
11:45	H32	DS 17.5	Energy Band Alignment in Thin Film Solar Cells •Andreas Klein
12:15	H32	DS 17.6	Nanowire device concepts for thin film photovoltaics •Silke Christiansen
13:15	H15	DS 22	Gaede Prize Talk – Kirsten von Bergmann

Sessions

09:30	H32	DS 17	Focus Session: Thin Film Photovoltaic Materials and Solar Cells I
09:30	H8	DS 18	Micro- and Nanopatterning (jointly with O)

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DS

09:30	H23	DS 19	Spin Effects in Molecules at Surfaces (jointly with MA, O)
09:30	H11	DS 20	High- and Low-k-Dielectrics (jointly with DF)
11:45	H8	DS 21	Focus Session: Functionalized Semiconductor Nanowires II (jointly with HL)
14:45	H8	DS 23	Focus Session: Thin Film Photovoltaic Materials and Solar Cells II
14:45	H32	DS 24	Thermoelectric Materials
15:00	H10	DS 25	Focus Session: Magnetic Damping Phenomena in Thin Films and Nanostructures (jointly with MA)
16:00	H33	DS 26	Organic Electronics and Photovoltaics (jointly with CPP, HL, O)
17:15	H32	DS 27	Thin Film Characterization: Structure Analysis and Composition (XRD, TEM, XPS, SIMS, RBS,...) I

DY

Invited Talks			
09:30	H46	DY 16.1	Dynamics of thin sheets: Crumpling, wrinkling and cracking •Pascal Damman
12:00	H48	DY 18.10	The physics of information: from Maxwell's demon to Landauer •Eric Lutz
15:00	H44	DY 20.1	Energiewende 2.0 * the transformation of energy systems in uncertain times •Jürgen-Fr. Hake, Wolfgang Fischer
15:30	H44	DY 20.2	Basin Stability and its Consequences for Power Grids •Jürgen Kurths, Peter Menck, Peng Ji
16:00	H44	DY 20.3	Requirements and Concepts for Self-Organized Agent-Based Control in Smart Distribution Grids •Astrid Nieße
16:30	H44	DY 20.4	A 100% renewable power system in Europe •Martin Greiner, Sarah Becker, Rolando Rodriguez, Tue Jensen, Timo Zeyer, Anders Soendergaard, Gorm Andresen
16:30	H48	DY 22.6	Entropy based approaches to transport •Thomas Christen
Sessions			
09:30	H46	DY 16	Pattern Formation
10:00	H47	DY 17	Soft matter
09:30	H48	DY 18	Statistical Physics Far from Thermal Equilibrium
09:30	H37	DY 19	Focus Session: Dynamics of Adaptive Networks (joint session BP/DY/SOE)
15:00	H44	DY 20	Focus Session: Modern Power Grid, Nonlinear Dynamics and Self-Organization (joint with SOE)
15:00	H47	DY 21	Granular Matter / Contact Dynamics
15:00	H48	DY 22	Statistical Physics (general)
15:00	H43	DY 23	Statistical Physics in Biological Systems II (joint with BP)
15:45	H37	DY 24	Networks, From Topology to Dynamics (joint session BP/DY/SOE)

HL

Invited Talk, Topical Talks			
09:30	H15	HL 51.1	Nano-scale characterization of semiconductors using helium temperature scanning transmission electron microscopy cathodoluminescence

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HL

15:00	H13	HL 58.1	•Jürgen Christen, Gordon Schmidt, Peter Veit, Frank Bertram, Marcus Müller Potential and possibilities of copper oxide compounds
15:30	H13	HL 58.2	•Bruno K. Meyer Intrinsic and hydrogen related impurities in Cu ₂ O
16:45	H13	HL 58.4	•Graeme Watson Accelerating efficiency enhancements in cuprous oxide thin films by applying a structured approach
17:15	H13	HL 58.5	•Tonio Buonassisi Photoemission Spectra of CuO from First Principles: Quasiparticle Excitations and Beyond
15:00	H16	HL 60.1	•Claudia Rödl, Francesco Sottile, Lucia Reining Direct observation of coherent light matter interaction in room temperature semiconductor devices
15:30	H16	HL 60.2	•Gadi Eisenstein Impact of coherent processes on the dynamics of quantum-dot lasers and amplifiers
16:00	H16	HL 60.3	•Kathy Lüdge Ultrafast coherent exciton dynamics in individual quantum dots – phonons, coherent coupling, and CQED
16:45	H16	HL 60.4	•Wolfgang Langbein Optical Properties of coupled InAs submonolayer depositions in GaAs
17:15	H16	HL 60.5	•Udo W. Pohl, Thomas Switaiski, Ulrike Woggon, Jan-Hindrik Schulze, Tim D. Germann, André Strittmatter Coherent optical control of quantum dot spins and spin-photon entanglement
			•Sven Höfling, Kristiaan De Greve, Peter L. McMahon, David Press, Leo Yu, Jason S. Pelc, Chandra M. Natarajan, Na Young Kim, Thaddeus Ladd, Eisuke Abe, Sebastian Maier, Dirk Bisping, Christian Schneider, Martin Kamp, Robert H. Hadfield, Alfred Forchel, M. M. Fejer, Yoshihisa Yamamoto
			Sessions
09:15	H16	HL 48	Topological insulators (HL, jointly with O, TT)
09:30	H2	HL 49	Molecular electronics (TT, jointly with CPP, HL, MA)
09:30	H13	HL 50	Organic semiconductors
09:30	H15	HL 51	Invited Talk: Jürgen Christen
09:30	H17	HL 52	Graphene: Characterization and devices (HL, jointly with MA, O, TT)
10:00	H15	HL 53	GaN: Devices
10:30	H36	HL 54	Focus Session: Frontiers of electronic structure theory IV (O, jointly with HL, TT)
11:45	H8	HL 55	Focus Session: Functionalized semiconductor nanowires II (DS, jointly with HL)
12:00	H15	HL 56	GaN: Optical characterization
15:00	H2	HL 57	Spintronics/Quantum information: Materials and methods (HL, jointly with TT)
15:00	H13	HL 58	Focus Session: Copper oxide semiconductors – An attractive material for photovoltaics?
15:00	H15	HL 59	Goup IV elements and their compounds I
15:00	H16	HL 60	Focus Session: Coherent dynamics in semiconductor nanostructures and coupled devices

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HL

15:00	H20	HL 61	Focussed Session: Majorana fermions in condensed matter (TT, jointly with HL, MA, O)
16:00	H17	HL 62	Graphene: SiC substrates and intercalation (O, jointly with HL, TT)
16:00	H33	HL 63	Organic electronics and photovoltaics III (O, jointly with CPP, DS, HL)
16:00	H36	HL 64	Focus Session: Frontiers of electronic structure theory V (O, jointly with HL, TT)
16:30	Poster C	HL 65	Poster: Organic electronics and photovoltaics (CPP; jointly with HL, O)
17:00	H15	HL 66	GaN: Preparation and characterization of rods and wires
16:00	Poster A	HL 67	Focus Session (Posters): Crystalline n-type semiconducting oxides – SnO ₂ , Ga ₂ O ₃ , and In ₂ O ₃ for novel devices
16:00	Poster A	HL 68	Poster Session: GaN: devices & preparation & characterization; III-V semiconductors; Photonic crystals; Semiconductor lasers
16:00	Poster A	HL 69	Poster Session: II-VI semiconductors; Organic semiconductors; Heterostructures
16:00	Poster A	HL 70	Poster Session: Devices; Preparation and characterization; C/diamond; Si/Ge

KR

			Session
15:00	Poster B2	KR 5	Poster – Crystallography

MA

			Topical Talks
15:00	H10	MA 31.1	An overview of magnetic damping in ferromagnets •Robert McMichael
15:30	H10	MA 31.2	Magnetic Damping on Femtosecond Time Scales •Markus Münzenberg
16:00	H10	MA 31.3	Two-Magnon Excitations: From Periodical Perturbations to Magnonic Crystals •Kilian Lenz
16:30	H10	MA 31.4	Gilbert damping parameter from first-principles •Diemo Ködderitzsch, Sergiy Mankovsky, Hubert Ebert, Georg Woltersdorf
17:00	H10	MA 31.5	Spin dynamics and relaxation in ferrimagnets Frank Schlickeiser, Sönke Wienholdt, Denise Hinzke, •Ulrich Nowak
			Sessions
09:30	H17	MA 20	Graphene: Characterization and devices (HL, jointly with DS, MA, O, TT)
09:30	H1	MA 21	Thermoelectric and Spincaloric Transport in Nanostructures
09:30	H2	MA 22	Transport: Molecular, Electronics, (jointly with CPP, HL, and MA)
09:30	H23	MA 23	Spin Effects in Molecules at Surfaces (jointly with DS, O)
09:30	H22	MA 24	Magnetic Imaging and Scattering Techniques
09:30	H10	MA 25	Magnetic Heusler Compounds
09:30	H3	MA 26	Magnetic Thin Films I of II
15:00	H3	MA 27	Magnetic Thin Films II of II
15:00	H22	MA 28	Magnetic Materials
15:00	H23	MA 29	Micro- and Nanostructured Magnetic Materials
15:00	H20	MA 30	Focussed Session: Majorana Fermions in Condensed Matter (jointly with DS, HL, MA, and O)

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MA

15:00	H10	MA 31	Focus Session: Magnetic Damping Phenomena in Thin Films and Nanostructures (jointly with DS)
18:15	H10		Annual General Meeting of the Magnetism Division

MM

Invited Talks, Topical Talks

09:30	H24	MM 29.1	Modelling and understanding the strength of grain boundaries based on ab-initio results •Rebecca Janisch
10:15	H25	MM 32.1	Structure and deformation processes of nanocrystalline metals characterized by ACOM-STEM in combination with in-situ straining Aaron Kobler, Horst Hahn, •Christian Kübel
12:30	H25	MM 36.4	In-situ transmission electron microscopy •Henny Zandbergen
15:00	H4	MM 38.1	Modelling fracture scattering by defects in brittle crystals •Alessandro De Vita, James Kermode, Giovanni Peralta, Marco Caccin, Zhenwei Li
15:00	H25	MM 40.1	The kinetics of nanowire growth as seen by ultra-high vacuum transmission electron microscopy •Frances M. Ross
16:30	H4	MM 42.1	Configurational Mechanics: A Continuum Approach to Model Fracture and Defects •Paul Steinmann
16:45	H25	MM 44.2	In-situ environmental TEM studies of oxide electro-catalysts •Christian Jooss, Stephanie Raabe, Daniel Mierwaldt, Jim Ciston, Matthé Uijttewaal, Jörg Hoffmann, Peter Blöchl, Yimei Zhu
18:00	H24	MM 46.1	Brittle-ductile transitions – cracks and dislocations •Steve Roberts
18:30	H24	MM 47.1	Microscopic friction mechanisms on metal surfaces •Roland Bennewitz

Sessions

09:30	H24	MM 29	Invited Talk: Janisch
10:15	H4	MM 30	Topical Session: Fundamentals of Fracture – Modelling Intergranular Fracture
10:15	H24	MM 31	Computational Materials Modelling – Diffusion & Kinetics II
10:15	H25	MM 32	Topical Session: TEM-Symposium – Structure-Property / In-Situ I
10:15	H26	MM 33	Structural Materials
11:45	H4	MM 34	Topical Session: Fundamentals of Fracture – Fracture at the Atomistic Scale
11:45	H24	MM 35	Computational Materials Modelling – Phonons & Phase Stability
11:45	H25	MM 36	Topical Session: TEM-Symposium – Structure-Property / In-Situ II
11:45	H26	MM 37	Mechanical Properties I
15:00	H4	MM 38	Topical Session: Fundamentals of Fracture – Atomistic Modelling
15:00	H24	MM 39	Computational Materials Modelling – Transport, Excitations, Time Dependence I
15:00	H25	MM 40	Topical Session: TEM-Symposium – In-Situ I
15:00	H26	MM 41	Mechanical Properties II
16:30	H4	MM 42	Topical Session: Fundamentals of Fracture – Continuous Models

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MM

16:30	H24	MM 43	Computational Materials Modelling – Transport, Excitations, Time Dependence II
16:30	H25	MM 44	Topical Session: TEM-Symposium – In-Situ II
16:30	H26	MM 45	Nanomaterials – Nanospheres & Fibres
18:00	H24	MM 46	Invited Talk (Hauptvortrag): Roberts
18:30	H24	MM 47	Invited Talk (Hauptvortrag): Bennewitz
19:30	H24		Annual General Meeting of the Metal and Material Physics Division

MI**Sessions**

09:30	H5	MI 6	X-ray Imaging, Holography and Tomography
11:00	H5	MI 7	Ion Beam Methods
12:30	H9	MI 8	Nanostructured Oxide Thermoelectrics – Joint Session with DF related to SYTS
15:00	Poster B2	MI 9	Poster: Microanalysis and Microscopy
18:00	H5		Annual General Meeting of the Microprobes Division

O**Prize Talk, Invited Talks, Topical Talks**

09:30	H36	O 37.1	Single impurities in semiconductors studied by STM •Paul Koenraad
10:30	H36	O 41.1	Challenges in data-intensive computational materials design: methodology and infrastructure •Boris Kozinsky
13:15	H15	O 47.1	Complex magnetic order on the atomic scale •Kirsten von Bergmann (Laureate of the Geade-Prize)
15:00	H36	O 48.1	Surface-confined molecular nanoarchitectures: non-covalent and covalent construction and templated dynamics •Florian Klappenberger
16:00	H36	O 51.1	Screening high throughput density functional theory calculations using simplified models. •Georg K. H. Madsen, Ingo Opahle, Alessandro Parma, Eunan J. McEniry, Ralf Drautz

Sessions

09:30	H36	O 37	Invited Talk: Paul M. Koenraad
09:15	H16	O 38	Topological Insulators (jointly with HL, MA, TT)
09:30	H17	O 39	Graphene: Characterization and Devices (jointly with DS, HL, MA, and TT)
09:30	H23	O 40	Spin Effects in Molecules at Surfaces (jointly with DS, MA)
10:30	H36	O 41	Focussed Session: Frontiers of Electronic Structure Theory IV (jointly with HL and TT)
10:30	H38	O 42	Organic/bio Molecules on Metal Surfaces IV
10:30	H31	O 43	Plasmonics and Nanooptics IV
10:30	H33	O 44	Scanning Probe Methods I
10:30	H42	O 45	Metal Substrates II
10:30	H45	O 46	Nanostructures and Clusters
13:15	H15	O 47	Gaede Prize Talk: Kirsten von Bergmann
15:00	H36	O 48	Invited Talk :Florian Klappenberger

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O

15:00	H1	O 49	Quantum Plasmonics (SYQP, jointly with HL, TT)
15:00	H20	O 50	Focussed Session: Majorana Fermions in Condensed Matter (jointly with DS, HL, MA, and TT)
16:00	H36	O 51	Focussed Session: Frontiers of Electronic Structure Theory V (jointly with HL and TT)
16:00	H38	O 52	Organic/bio Molecules on Metal Surfaces V
16:00	H31	O 53	Scanning Probe Methods II
16:00	H33	O 54	Organic Electronics and Photovoltaics (jointly with CPP, DS, HL)
16:00	H42	O 55	Electronic Structure and Spin-Orbit Interaction II
16:00	H45	O 56	Oxide Surfaces I
16:00	H17	O 57	Graphene: SiC Substrates and Intercalation (jointly with HL, MA and TT)
18:15	Poster B1	O 58	Poster Session III: Solid-liquid interfaces; Scanning probe and other methods; Electronic structure theory; Spin-orbit interaction

SOE

Invited Talk, Topical Talks			
09:30	H37	SOE 15.1	Adaptive Networks: Of social interactions and mathematical tools •Anne-Ly Do
11:30	H37	SOE 15.8	Bio-molecular Networks: Structure, Function, Evolution •Michael Lässig
12:00	H37	SOE 15.9	Adaptive networks and critical dynamics •Stefan Bornholdt
15:00	H37	SOE 16.1	Information spreading and multi-stability in social systems •Kim Sneppen
Sessions			
09:30	H37	SOE 15	Focus Session: Dynamics of Adaptive Networks (joint with DY and BP)
15:00	H37	SOE 16	Networks (Invited Talk Kim Sneppen)
15:45	H37	SOE 17	Networks, From Topology to Dynamics (joint with DY and BP)
15:00	H44	SOE 18	Focus Session: Modern Power Grid, Nonlinear Dynamics and Self-Organization (joint with DY)
17:00	H37	SOE 19	Social Systems and Group Dynamics
18:00	H37	SOE 20	Traffic Dynamics, Urban and Regional Systems
18:20	H37	SOE 21	Annual General Meeting of the Physics of Socio-economic Systems Division

ST

Sessions			
11:00	Poster B2	ST 1	Poster
15:00	H41	ST 2	Advances in X-Ray Imaging I
16:40	H41	ST 3	Advances in X-Ray Imaging II

TT

Invited Talks, Topical Talks			
17:00	H18	TT 42.8	Orbitronics in Silicon •Gabriel Aeppli
15:00	H20	TT 44.1	Subgap States in Majorana Wires •Piet Brouwer

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TT

15:30	H20	TT 44.2	New Measurements on Nanowire Majorana Systems •Charles Marcus, Hugh Churchill, Mintang Deng, Hongqi Xu
16:00	H20	TT 44.3	Adaptive Tuning of Majorana Fermions in a Quantum Dot Chain •Anton Akhmerov
16:45	H20	TT 44.4	Majorana Fermions in Disordered Quantum Wires •Alexander Altland
17:15	H20	TT 44.5	Parity Effects and Crossed Andreev Noise in Transport through Majorana Wires •Bernd Rosenow, Björn Zocher, Mats Horsdal
16:45	H19	TT 48.1	Transport as a sensitive indicator for quantum criticality •Gernot Schaller, Malte Vogl, Tobias Brandes
Sessions			
09:15	H16	TT 33	Topological Insulators 3 (jointly with HL, MA, and O)
09:30	H2	TT 34	Transport: Molecular Electronics (jointly with CPP, HL, MA)
09:30	H17	TT 35	Graphene – Characterization and Devices (jointly with DS, HL, MA, and O)
09:30	H18	TT 36	Superconductivity: Fe-based Superconductors – Fe(Se,Te), LiFeAs, and other Materials
09:30	H19	TT 37	Quantum Coherence, Quantum Information Systems 1
09:30	H20	TT 38	Correlated Electrons: Metal-Insulator Transition 1
10:30	H36	TT 39	Focussed Session: Frontiers of Electronic Structure Theory 4 (jointly with HL and O)
15:00	Poster D	TT 40	Poster Session Correlated Electrons
15:00	H2	TT 41	Spintronics / Quantum Information: Materials and Methods (jointly with HL)
15:00	H18	TT 42	Quantum Coherence, Quantum Information Systems 2
15:00	H19	TT 43	Correlated Electrons: Metal-Insulator Transition 2
15:00	H20	TT 44	Focussed Session: Majorana Fermions in Condensed Matter (jointly with DS, HL, MA, and O)
15:00	H21	TT 45	Superconductivity: (General) Theory
16:00	H17	TT 46	Graphene – SiC Substrates and Intercalation (jointly with DS, HL, MA, and O)
16:00	H36	TT 47	Focussed Session: Frontiers of Electronic Structure Theory 5 (jointly with HL and O)
16:45	H19	TT 48	Correlated Electrons: Quantum-Critical Phenomena – Theory
17:00	H21	TT 49	Superconductivity: SQUIDs & Cryodetectors

VA

Session			
13:15	H15	VA 5	Gaede-Prize Talk: Kirsten von Bergmann

AIW

Invited Talks			
09:30	Theater	AIW 1.1	Kognitive 3D-Bildverarbeitung •Christian Wöhler
10:15	Theater	AIW 1.2	Der mechatronische Designprozess in der Entwicklung schneller Aktoren •Randolf Mock

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AIW

11:00	Theater	AIW 1.3	From Polymer Physics to University Relationships: A Journey into BASF's Innovation Culture •Valerie Andre
13:30	Theater	AIW 2.1	Milestones and More – als Physikerin im Projektmanagement •Silke Bargstaedt-Franke
14:15	Theater	AIW 2.2	Führung im globalen Kontext und zwischen den Kulturen •Armin Pfoh
15:00	Theater	AIW 2.3	Menschen, Märkte und Maschinen – Marketing, Produktmanagement und Vertrieb in forschungsnahen Branchen •Andreas Thißen
16:00	Theater	AIW 3.1	Der Physiker als Patentanwalt/die Physikerin als Patentanwältin •Udo Weigelt
16:45	Theater	AIW 3.2	Feldgeräte – angewandte Physik als Basis der Industrieautomatisierung •Jürgen Spitzer
Sessions			
09:30	Theater	AIW 1	Physiker als Experte
13:30	Theater	AIW 2	Physiker als Führungskraft
16:00	Theater	AIW 3	Physiker als Unternehmer und Selbstständige
17:30	Theater	AIW 4	Networking bei Bier und Brezn

AGjDPG

Invited Talks			
15:00	H6	AGjDPG 3.1	Active Mechanical Processes in Cells and Tissues •Frank Jülicher
15:30	H6	AGjDPG 3.2	Cell mechanics: An experimental biophysicist's perspective •Jochen Guck
Session			
15:00	H6	AGjDPG 3	Biomechanics (joint Focussed Session with BP)

09:00 Foyer, Gallery,
H6, RW Bldg. Exhibition of Scientific Instruments and Literature

20:00 H1 PV XIII **Evening Talk (Entrance free)**
Vom Cubit zum neuen Kilogramm
•Klaus von Klitzing

Thursday, March 14, 2013

			Plenary Talks, Prize Talk
08:30	H1	PV XIV	Magnonic Transport Phenomena •Burkard Hillebrands
13:15	H1	PV XV	Near Field Optics – Science of the "Invisible Light" •Wolfgang Dieter Pohl (Laureate of the Stern-Gerlach-Medal)
14:00	H1	PV XVI	Computational Materials Science Applied to Magnetism of Bulk and Nano-scale Materials •Olle Eriksson
14:00	H15	PV XVII	Observing the Interactions of Ions with Solid-Liquid Interfaces using X-rays •Paul Fenter

SYMM

			Invited Talks
09:30	H1	SYMM 1.1	Challenges for first-principles based computation of properties of oxide materials •Karsten Albe
10:00	H1	SYMM 1.2	Deformation and Fracture of Solids: Tough Nuts at Atomic and Continuum Scales •Peter Gumbsch, Matous Mrovec, Kinshuk Srivastava, Daniel Weygand
10:30	H1	SYMM 1.3	Crucial Issues and Future Directions of Through-Process Modeling •Guenter Gottstein
11:00	H1	SYMM 1.4	Adaptive Resolution Simulations for Soft Matter: Applications and New Developments •Kurt Kremer
11:30	H1	SYMM 1.5	Materials by design •Markus Buehler
			Session
09:30	H1	SYMM 1	Computational Challenges in Scale-Bridging Modeling of Materials

SYPM

			Invited Talks
15:00	H1	SYPM 1.1	Ultrafast emergence of nanoscale ferromagnetism far from equilibrium •Hermann Dürr
15:30	H1	SYPM 1.2	Free-Electron Laser for Ultrafast Measurements in Material Science •Sven Reiche
16:00	H1	SYPM 1.3	Nanomagnetism seen by Femtosecond X-rays •Stefan Eisebitt
16:30	H1	SYPM 1.4	Ultrashort Radiation Pulses at Storage Rings •Holger Huck
17:00	H1	SYPM 1.5	Every atom counts – Magnetic properties of supported metal atoms and small alloy clusters Torben Beck, Ivan Baev, Steffen Palutke, Kai Chen, Sören Meyer, Kari Jänkäälä, Michael Martins, •Wilfried Wurth
			Session
15:00	H1	SYPM 1	Photons in Magnetism (MA, HL, MI, O)

Thursday, March 14, 2013

BP

Invited Talks, Topical Talks

09:30	H43	BP 27.1	DNA Origami: Applications in Physics and Biotechnology •Tim Liedl
09:30	H44	BP 28.1	Advanced Fluorescence Methods for Investigating the Lifecycle of Viruses •Don C. Lamb
11:30	H44	BP 28.7	Looking at proteins inside live cells with atomic resolution: Science fiction or science reality? •Phil Selenko
15:00	H43	BP 30.1	Inversion and perversion in biomechanics: from microscopic anisotropy to macroscopic chirality. •Alain Goriely
16:15	H43	BP 30.5	A noisy path to order: refinement of a developing tissue •Buzz Baum

Sessions

09:30	H43	BP 27	Biotechnology and Bioengineering
09:30	H44	BP 28	Focus Session: Intracellular Spectroscopy
09:30	H1	BP 29	Computational Challenges in Scale-Bridging Modeling of Materials (SYMM, joint with CPP, DY and MM)
15:00	H43	BP 30	Tissue
15:00	H46	BP 31	Statistical Physics in Biological Systems III (joint with DY)

CPP

Invited Talks

09:30	H34	CPP 39.1	Influence of morphology on organic solar cell performance comparing crystalline diindenoperylene (DIP) and its amorphous derivative tetraphenyldibenzoperiflanthene (DBP) Stefan Grob, Mark Gruber, Ulrich Hörmann, •Wolfgang Brütting
09:30	H39	CPP 40.1	Collective van der Waals Interactions in Molecules, Solids, and Interfaces •Alexandre Tkatchenko
10:15	H39	CPP 40.3	The influence of van der Waals interactions on the adsorption of proteins to solid/liquid interfaces •Hendrik Hähl
09:30	H40	CPP 41.1	Out-of-Equilibriumness of Light Activated Colloids •jeremie Palacci, Stefano Sacanna, Asher Preska Steinberg, Adrian Vatchinsky, Kasey Hanson, David Pine, Paul Chaikin
10:30	H40	CPP 41.4	Mesoscale Simulations of Active Colloids •Gerhard Gompper
12:00	H40	CPP 41.8	Orientalional Order and Packings of Non-Spherical Particles •Klaus Mecke, Rene Wittmann, Sebastian Kapfer, Gerd Schröder-Turk
15:00	H34	CPP 43.1	Quantum coherence controls the charge separation in a prototypical artificial light harvesting system •C. Lienau, S. M. Falke, C. A. Rozzi, N. Spallanzani, A. Rubio, E. Molinari, D. Brida, M. Maiuri, G. Cerullo, H. Schramm, J. Christoffers
15:00	H39	CPP 44.1	Dynamic reorganization of droplets: from Foams to Phonons •Ralf Seemann, Jean-Baptiste Fleury, Ulf D. Schiller, Shashi Thutupalli, Ohle Claussen, Stephan Herminghaus, Gerhard Gompper, Martin Brinkmann

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CPP

17:00	H39	CPP 44.7	Wetting behaviour in inkjet printed droplets •Patrick Smith, Jonathan Stringer
15:00	H40	CPP 45.1	Interacing colloidal fluids self-assembled from supramolecular polymers Tingzi Yan, Klaus Schröter, Florian Herbst, Wolfgang Binder, •Thomas Thurn-Albrecht
Sessions			
09:30	H1	CPP 38	SYMM: Computational Challenges in Scale-Bridging Modeling of Materials
09:30	H34	CPP 39	Organic Electronics and Photovoltaics IV (joint session CPP/HL/O/DS)
09:30	H39	CPP 40	Focus Session: Van der Waals at soft matter interfaces: structure and dynamics
09:30	H40	CPP 41	Colloids and Complex Liquids I
11:30	H39	CPP 42	New Instruments and Methods
15:00	H34	CPP 43	Organic Electronics and Photovoltaics V (joint session CPP/HL/O/DS)
15:00	H39	CPP 44	Wetting, Micro- and Nanofluidics
15:00	H40	CPP 45	Colloids and Complex Liquids II

DF

Invited Talks			
09:30	H11	DF 20.1	Organic Perovskites: Intriguing Magnetic Ferroelectrics •Naresh Dalal
10:10	H11	DF 20.2	Ferroelectricity in organic and hybrid organic-inorganic compounds •Alessandro Stroppa, Silvia Picozzi
11:00	H11	DF 20.3	Coupling of charge and spin order in organic charge transfer salts •Martin Dressel
11:40	H11	DF 20.4	Electrodynamics and ferroelectricity in two-dimensional molecular solids •Silvia Tomic, Tomislav Ivek, Marko Pinteric, Matija Culo, Bojana Korin-Hamzic, Martin Dressel
Session			
09:30	H11	DF 20	Focus Session: Organic ferroelectrics

DS

Invited Talk, Topical Talks			
09:30	H32	DS 29.1	Organic Magnetoresistance: The effect of excitons on charge transport in organic semiconductors •William Gillin
10:00	H32	DS 29.2	Metal-phthalocyanines: Materials for molecular spintronics •Jens Kortus, Rico Friedrich, Torsten Hahn, Claudia Loose, Martin Knupfer
10:30	H32	DS 29.3	Magneto-optical Kerr Effect Spectroscopy of Selected Phthalocyanines and Porphyrines •Georgeta Salvan, Peter Robaschick, Frank Lungwitz, Michael Fronk, Carola Mende, Heinrich Lang, Rico Friedrich, Jens Kortus, Dietrich R.T. Zahn
11:00	H32	DS 29.4	Molecular Quantum Spintronics •Mario Ruben

Thursday, March 14, 2013

DS

11:45	H32	DS 29.5	Nanomembrane based electrodes for contacting ultra-thin organic layers •Carlos Cesar Bof Bufon, Celine Vervacke, Maria Esperança Navarro Fuente, Dominic J. Thurmer, Christian Müller, Michael Fronk, Georgeta Salvan, Dietrich R. T. Zahn, Oliver G. Schmidt
12:15	H32	DS 29.6	Spinterfaces as microscopic spin traps •Mirko Cinchetti
Sessions			
09:30	H8	DS 28	Layer Properties: Electrical, Optical, and Mechanical Properties
09:30	H32	DS 29	Focus Session: Organic Materials for Spintronics: From Spinterface to Devices (jointly with HL, MA, O)
14:45	H32	DS 30	Thin Film Characterization: Structure Analysis and Composition (XRD, TEM, XPS, SIMS, RBS,...) II
14:45	H8	DS 31	Organic thin films II
17:00	Poster B2	DS 32	Poster Session IV: Atomic layer deposition; Organic thin films; Organic Electronics and Photovoltaics; Organic Materials for Spintronics – from spinterface to devices; Thin film photovoltaic materials and solar cells

DY

Invited Talks			
09:30	H47	DY 26.1	Genuine quantum interference in interacting bosonic fields: The semiclassical propagator in Fock space •Juan Diego Urbina, Thomas Engl, Arturo Arguelles, Julien Dujardin, Peter Schlagheck, Klaus Richter
15:00	H44	DY 29.1	Transitions in rotating Rayleigh-Benard convection at high Rayleigh numbers •Andreas Tilgner
15:30	H44	DY 29.2	Connecting Statistics and Dynamics of Turbulent Rayleigh-Bénard Convection •Johannes Lülff, Michael Wilczek, Rudolf Friedrich, Richard Stevens, Detlef Lohse, Klaus Petschel, Ulrich Hansen
16:00	H44	DY 29.3	Temperature statistics near the ultimate state of turbulent Rayleigh-Bénard convection •Xiaozhou He, Dennis van Gils, Eberhard Bodenschatz, Guenter Ahlers
16:30	H44	DY 29.4	Cloud formation studies in moist Rayleigh-Bénard convection •Jörg Schumacher
Sessions			
09:30	H46	DY 25	Critical Phenomena and Phase Transitions
09:30	H47	DY 26	Quantum Chaos I
09:30	H48	DY 27	Fluid Dynamics and Turbulence
09:30	H1	DY 28	Symposium: Computational Challenges in Scale-Bridging Modeling of Materials (SYMM)
15:00	H44	DY 29	Focus Session: Rayleigh Benard System and Convective Turbulence
15:00	H47	DY 30	Quantum Chaos II
15:00	H48	DY 31	Anomalous Diffusion
15:00	H46	DY 32	Statistical Physics in Biological Systems III (joint with BP)
17:00	Poster C	DY 33	Poster II
19:00	H47	DY 34	Annual General Meeting of the Dynamics and Statistical Physics

Thursday, March 14, 2013

HL

Topical Talks

- 09:30 H13 HL 72.1 Defect reduction methods for GaN heteroepitaxial films grown along semipolar orientations
•Philippe Vennéguès
- 10:00 H13 HL 72.2 Identification of defects in semipolar GaN and (Al,Ga,In)N by cathodoluminescence spectroscopy
•Klaus Thonke, Ingo Tischer, Matthias Hocker, Manuel Frey, Ferdinand Scholz
- 10:30 H13 HL 72.3 Stacking fault elimination in heteroepitaxial semi-polar GaN
•Armin Dadgar
- 11:30 H13 HL 72.5 Strain and Relaxation in Nonpolar and Semipolar GaN-based LEDs and Laser Diodes
•Kathryn Kelchner, Shuji Nakamura, Steven DenBaars, James Speck
- 12:00 H13 HL 72.6 Semipolar GaN substrate grown on patterned sapphire substrate by hydride vapor phase epitaxy
•Kazuyuki Tadatomo, Keisuke Yamane, Narihito Okada, Hiroshi Furuya, Yasuhiro Hashimoto

Sessions

- 09:30 H2 HL 71 Exciton polaritons and their condensates (HL, jointly with TT)
- 09:30 H13 HL 72 Focus Session: Extended defects in semi- and nonpolar GaN I
- 09:30 H15 HL 73 Devices
- 09:30 H16 HL 74 Quantum dots: Optical properties
- 09:30 H18 HL 75 Transport: Spintronics and magnetotransport 1 (TT, jointly with HL, MA)
- 09:30 H32 HL 76 Focus Session: Organic materials for spintronics – From spinterface to devices (DS, jointly with HL, MA, O)
- 09:30 H34 HL 77 Organic electronics and photovoltaics IV (CPP, jointly with DS, HL, O)
- 10:30 H17 HL 78 Graphene: Preparation and characterization I (O, jointly with HL, TT)
- 10:30 H36 HL 79 Focus Session: Frontiers of electronic structure theory VI (O, jointly with HL, TT)
- 11:45 H15 HL 80 II-VI-compounds other than ZnO
- 14:45 H13 HL 81 Focus Session: Extended defects in semi- and nonpolar GaN II
- 15:00 H2 HL 82 Quantum dots and wires: Cavities and photons
- 15:00 H16 HL 83 Transport I
- 15:00 H17 HL 84 Graphene: Theory (HL, jointly with O, TT)
- 15:00 H18 HL 85 Topological insulators (TT, jointly with DS, HL, MA)
- 15:00 H34 HL 86 Organic electronics and photovoltaics V (CPP, jointly with HL, O)
- 15:45 H15 HL 87 Group IV elements and their compounds II
- 16:00 H36 HL 88 Focus Session: Frontiers of electronic structure theory VII (O, jointly with HL, TT)
- 16:45 H16 HL 89 Transport II
- 16:00 Poster A HL 90 Poster Session: Quantum information systems; Optical properties; Ultrafast phenomena
- 16:00 Poster A HL 91 Poster Session: Quantum dots and wires: preparation & characterization & optical properties & transport properties
- 16:00 Poster A HL 92 Poster Session: Structure and transport in organic photovoltaics; Photovoltaics; Impurities/Amorphous semiconductors; New materials
- 18:00 H14 Annual General Meeting of the Semiconductor Physics Division
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Thursday, March 14, 2013

KR

17:45	H9	KR 6	Session Annual General Meeting of the Crystallography Division
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MA

			Invited Talks, Topical Talks
09:30	H10	MA 32.1	Spin Hall and spin Nernst effect from first principles •Ingrid Mertig
10:00	H10	MA 32.2	Spin currents in ferromagnetic insulator/normal metal hybrids •Matthias Althammer
10:30	H10	MA 32.3	From magnon flow to spin current and back •Andrii Chumak
11:00	H10	MA 32.4	Interaction between spin waves and magnetic domain walls in insulating ferromagnets •Peng Yan
11:30	H10	MA 32.5	Current driven domain wall dynamics controlled by proximity induced interface magnetization •Stuart Parkin
09:30	H3	MA 36.1	Towards single Nanoparticle detection: Element Specific Ferromagnetic Resonance – Microresonators in ScanningTransmission X-ray Microscopy •Katharina Ollefs
15:00	H3	MA 44.1	Spin-polarized scanning field emission microscopy and spectroscopy •Anika Schlenhoff
			Sessions
09:30	H10	MA 32	Focus Session: Spin Current Devices
09:30	H22	MA 33	Magnetization Dynamics I of III
10:30	H33	MA 34	Surface and Interface Magnetism II (jointly with O)
09:30	H23	MA 35	Magnetic Oxides and Shape Memory Alloys (jointly with MM)
09:30	H3	MA 36	Magnetic Measurement Techniques
09:30	H32	MA 37	Focus Session: Organic Materials for Spintronics: From Spinterface to Devices (jointly with HL, MA, O)
09:30	H18	MA 38	Transport: Spintronics, Magnetotransport 1 (jointly with HL & MA)
09:30	H20	MA 39	Focused Session: Magnetism & Superconductivity in Fe-based Pnictides and Chalcogenides (jointly with MA)
15:00	H23	MA 40	Molecular Magnetism
15:00	H18	MA 41	Topological Insulators 4 (jointly with DS, HL, MA, and O)
15:00	H20	MA 42	Focus Session: Dynamical Mean-Field Approach to Correlated Electron Materials (jointly with MA)
15:00	H22	MA 43	Magnetization Dynamics II of III
15:00	H3	MA 44	Surface Magnetism (jointly with O)
15:00	H10	MA 45	Magnetic Coupling and Spin Structures

MM

			Invited Talks, Topical Talks
09:30	H24	MM 48.1	Hydrogen embrittlement revisited by novel nano-mechanical approach •Afrooz Barnoush, Mohammad Zamanzade, Masoud Asgari, Roy Johnsen, Horst Vehoff

Thursday, March 14, 2013

MM

10:15	H4	MM 49.1	How crystals break – crack initiation and propagation, experiments and atomistic calculations •Dov Sherman
15:00	H24	MM 57.1	Micro- and macroplastic behavior of nanocrystalline Pd-Ag alloy in temperature range between 4 and 300K •Yulia Ivanisenko
15:45	H4	MM 58.1	Nucleation and interaction of cracks at and with interfaces •Horst Vehoff
17:15	H4	MM 62.1	Elasticity and disorder for fracture size effects •Stefano Zapperi
Sessions			
09:30	H24	MM 48	Invited Talk: Barnoush
10:15	H4	MM 49	Topical Session: Fundamentals of Fracture – Novel Experimental Techniques I
10:15	H24	MM 50	Computational Materials Modelling – Defects & Interfaces I
10:15	H25	MM 51	Nanomaterials – Nanocrystalline & Porous Materials I
10:15	H26	MM 52	Phase Transformations I
11:45	H4	MM 53	Topical Session: Fundamentals of Fracture – Novel Experimental Techniques II
11:45	H24	MM 54	Computational Materials Modelling – Defects & Interfaces II
11:45	H25	MM 55	Nanomaterials – Nanocrystalline & Porous Materials II
11:45	H26	MM 56	Phase Transformations II
15:00	H24	MM 57	Invited Talk: Ivanisenko
15:45	H4	MM 58	Topical Session: Fundamentals of Fracture – Fatigue Fracture
15:45	H24	MM 59	Computational Materials Modelling – Phase Stability III
15:45	H25	MM 60	Nanomaterials – Nanoparticles
15:45	H26	MM 61	Liquid & Amorphous Metals I
17:15	H4	MM 62	Topical Session: Fundamentals of Fracture – Stochastic Aspects
17:15	H24	MM 63	Computational Materials Modelling – Phase Stability IV
17:15	H25	MM 64	Nanomaterials – Miscellaneous
17:15	H26	MM 65	Liquid & Amorphous Metals II

MI

09:30	H5	MI 10	Session Scanning Probe Microscopy
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O

Invited Talks, Topical Talks			
09:30	H36	O 59.1	Interatomic Potentials for Molecules, Solids, and Surfaces Based on Artificial Neural Networks •Jörg Behler
10:30	H36	O 62.1	Atomic-scale design of energy materials •Karsten W. Jacobsen
10:30	H31	O 64.1	Cooperative Phenomena at the Solid/Liquid Interface •Katharina Krischer
11:15	H31	O 64.3	Electrochemical energy conversion – interesting challenges for Surface Scientists •Harry E. Hoster

Thursday, March 14, 2013

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12:15	H31	O 64.5	Interaction of Pt-nanoparticles with graphitic carbon structures – a computational study •Alexander A. Auer, Wolfgang B. Schneider, Udo Benedikt
15:00	H36	O 69.1	Electrocatalysis: from single crystals to single nanoparticles •Marc Koper
16:00	H31	O 76.1	The origin of the high oxygen reduction activity on PtX (X= Sc, Y, La, Sm, Gd and ..) alloys and their activation mechanism. •Ib Chorkendorff
17:15	H31	O 76.4	Coupling electrochemistry to an ICP-MS – online-investigation of electrode material dissolution •Karl Mayrhofer, Serhiy Cherevko, Angel Topalov, Anna Schuppert, Josef Meier, Aleksandar Zeradjanin, Ioannis Katsounaros
Sessions			
09:30	H36	O 59	Invited Talk: Jörg Behler
09:30	H32	O 60	Focussed Session: Organic Materials for Spintronics: From Spinterface to Devices (jointly with DS, HL, and MA)
09:30	H34	O 61	Organic Electronics and Photovoltaics I (jointly with CPP, DS, and HL)
10:30	H36	O 62	Focussed Session: Frontiers of Electronic Structure Theory VI (jointly with HL and TT)
10:30	H38	O 63	Plasmonics and Nanooptics V
10:30	H31	O 64	Focussed Session: Solid-liquid Interfaces I
10:30	H33	O 65	Surface and Interface Magnetism II (jointly with MA)
10:30	H42	O 66	Oxide Surfaces II
10:30	H45	O 67	Competition for the Gerhard Ertl Young Investigator Award
10:30	H17	O 68	Graphene: Preparation and Characterization I (jointly with HL, MA and TT)
15:00	H36	O 69	Invited Talk: Marc Koper
15:00	H1	O 70	Photons in Magnetism (SYPM, jointly with MA, HL, MI)
15:00	H3	O 71	Surface Magnetism (jointly with MA)
15:00	H17	O 72	Graphene: Theory (jointly with DS, HL, MA, and TT)
15:00	H34	O 73	Organic Electronics and Photovoltaics II (jointly with CPP, DS, and HL)
16:00	H36	O 74	Focussed Session: Frontiers of Electronic Structure Theory VII (jointly with HL and TT)
16:00	H38	O 75	Organic/bio Molecules on Metal Surfaces VI
16:00	H31	O 76	Focussed Session: Solid-liquid Interfaces II
16:00	H33	O 77	Electronic Structure and Spin-Orbit Interaction III
16:00	H42	O 78	Surface Dynamics I
16:00	H45	O 79	Oxide Surfaces III
19:30	H36	O 80	Annual General Meeting of the Surface Science Division
20:00	H36	O 81	Post-Deadline Session

SOE

Invited Talks, Topical Talks

09:30	H37	SOE 22.1	Physics and the Information Society: Turning Big Data into Big Insight •René Pfitzner
10:00	H37	SOE 22.2	Network analysis literacy •Katharina Anna Zweig

Thursday, March 14, 2013

SOE

10:30	H37	SOE 22.3	From Noise to Signal. Stories about big data •Sune Lehmann, Yong-Yeol Ahn, Alan Mislove, Jukka-Pekka Onnela, Niels James Rosenquist
11:30	H37	SOE 22.6	Information Retrieval, Applied Statistics and Mathematics on BigData •Romeo Kienzler
12:00	H37	SOE 22.7	Web-Based Cognitive Science: Harnessing the Power of the Internet to Study Human Cognition •Christopher Y. Olivola
15:00	H37	SOE 23.1	Modelling innovation as expansion into the adjacent possible Francesca Tria, •Vittorio Loreto, Vito D.P. Servedio, Steven H. Strogatz

Sessions

09:30	H37	SOE 22	Focus Session: Big Data (joint with jDPG)
15:00	H37	SOE 23	Innovation Dynamics (Invited Talk: Vittorio Loreto)
15:45	H37	SOE 24	Group Dynamics
17:15	Poster C	SOE 25	Poster session

ST

Sessions

09:30	H41	ST 4	Advances in MR Imaging I
11:30	H41	ST 5	Advances in MR Imaging II
15:00	H41	ST 6	Advances in Radiation Therapy I
16:40	H41	ST 7	Advances in Radiation Therapy II
17:40	H41		Annual General Meeting of the Radiation and Medical Physics Division

TT

Invited Talks, Topical Talks

09:30	H20	TT 54.1	Fermiology and Order Parameter of Iron-based Superconductors from ARPES •Sergey Borisenko
10:00	H20	TT 54.2	Electron Correlations in Solids from the Dynamical Mean Field Perspective and the Origin Anomalous State of Matter in Iron Chalcogenides •Kristjan Haule
10:30	H20	TT 54.3	A Light Scattering Study of the Evolution of Pairing in Fe-based Superconductors •Rudi Hackl, Florian Kretschmar, Bernhard Muschler, Thomas Böhm, Hai-Hu Wen, Vladimir Tsurkan, Joachim Deisenhofer, Alois Loidl
11:15	H20	TT 54.4	Theory of Magnetism and Superconductivity for Iron-Chalcogenides •Jiangping Hu
11:45	H20	TT 54.5	Charge Dynamics in 122 Iron Pnictides •Aliaksei Charnukha, Oleg V. Dolgov, Paul Popovich, Dunlu Sun, Chengtian Lin, Alexander Yaresko, Bernhard Keimer, Alexander V. Boris
16:45	H6	TT 59.7	Electron Spin Resonance (ESR) close to a Quantum Phase Transition: Probing YbRh ₂ Si ₂ at mK Temperatures •Marc Scheffler, Conrad Clauss, Mojtaba Javaheri, Martin Dressel, Jörg Sichelschmidt, Cornelius Krellner, Christoph Geibel, Frank Steglich
15:00	H18	TT 61.1	Correlation Effects in Quantum Spin Hall Insulators •Martin Hohenadler

Thursday, March 14, 2013

TT

16:00	H19	TT 62.5	Condensation Energy of CeCu ₂ Si ₂ and Theoretical Implications •Stefan Kirchner
15:00	H20	TT 63.1	How Bad Metals Turn Good: Spectroscopic Signatures of Resilient Quasiparticles •Antoine Georges
15:30	H20	TT 63.2	Correlation Effects in Organic Superconductors •Roser Valenti
16:00	H20	TT 63.3	Photoemission Study of Correlated Oxides at High Temperatures Jonas Weinen, Stefano Agrestini, Martin Rotter, Alexander Komarek, Yen-Fa Liao, Ku-Ding Tsuei, Chien-Te Chen, •Hao Tjeng
16:45	H20	TT 63.4	Dynamical Mean Field Theory of Collective Excitations •Alexander Lichtenstein
17:15	H20	TT 63.5	Electronic Correlations beyond Dynamical Mean Field Theory •Karsten Held
Sessions			
09:30	H2	TT 50	Exciton Polaritons and their Condensates (jointly with HL)
09:30	H6	TT 51	Correlated Electrons: General Theory 1
09:30	H18	TT 52	Transport: Spintronics, Magnetotransport 1 (jointly with HL and MA)
09:30	H19	TT 53	Correlated Electrons: Heavy Fermions
09:30	H20	TT 54	Focussed Session: Magnetism & Superconductivity in Fe-based Pnictides and Chalcogenides (jointly with MA)
09:30	H21	TT 55	Correlated Electrons: Low-Dimensional Systems -Materials 2
10:30	H17	TT 56	Graphene – Preparation and Characterization 1 (jointly with DS, HL, MA, and O)
10:30	H36	TT 57	Focussed Session: Frontiers of Electronic Structure Theory 6 (jointly with HL and O)
15:00	Poster D	TT 58	Poster Session Transport & Matter at Low Temperature
15:00	H6	TT 59	Correlated Electrons: Quantum-Critical Phenomena – Experiments
15:00	H17	TT 60	Graphene – Theory (jointly with DS, HL, MA, and O)
15:00	H18	TT 61	Topological Insulators 4 (jointly with DS, HL, MA, and O)
15:00	H19	TT 62	Superconductivity: Properties, Electronic Structure, Order Parameter
15:00	H20	TT 63	Focussed Session: Dynamical Mean-Field Approach to Correlated Electron Materials (jointly with MA)
15:00	H21	TT 64	Superconductivity: Heterostructures, Andreev Scattering, Vortex Physics
16:00	H36	TT 65	Focussed Session: Frontiers of Electronic Structure Theory 7 (jointly with HL and O)
18:30	H19		Annual General Meeting of the Low Temperature Physics Division

AGJDPG

			Session
09:30	H37	AGJDPG 4	Big Data (joint with SOE)
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09:00	Foyer, Gallery, H6, RW Bldg.		Exhibition of Scientific Instruments and Literature
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20:00	H1		EinsteinSlam

Friday, March 15, 2013

08:30 H1 PV XVIII **Plenary Talk**
Templated Self-assembly of Block Copolymer Films
•Caroline Ross

SYES

09:30 H1 SYES 1.1 **Invited Talks**
Molecular dynamics simulation of nucleation and growth of crystals from solution
•Michele Parrinello

10:00 H1 SYES 1.2 Describing, understanding, and discovering hybrid materials from first principles
•Claudia Draxl

10:30 H1 SYES 1.3 Mapping the Electronic Structure Landscape for Materials Discovery
•Krishna Rajan

11:00 H1 SYES 1.4 New ferroelectrics and antiferroelectrics by design
•Karin Rabe

11:30 H1 SYES 1.5 The Materials Project: The design of materials using high-throughput ab initio computations
•Gerbrand Ceder

09:30 H1 SYES 1 **Session**
Frontiers of Electronic Structure Theory: Discovery of Novel Functional Materials (SYES)

BP

09:30 H43 BP 32 **Sessions**
Cell Adhesion and Mechanics

09:30 H44 BP 33 Statistical Physics in Biological Systems IV (joint with DY)

CPP

09:30 H34 CPP 47.1 **Invited Talks**
Ion transport in polyelectrolyte materials: Mechanisms and general scaling concepts
•Monika Schönhoff, Cornelia Cramer, Souvik De, Amrtha Bhide

09:30 H39 CPP 48.1 The distribution of segmental order in polymer networks
•Michael Lang, Jens-Uwe Sommer

09:30 H40 CPP 49.1 Interface-controlled property adjustment in ionic liquid/inorganic hybrid materials
•Andreas Taubert

09:15 H2 CPP 46 **Sessions**
Photovoltaics (joint session HL/CPP/O)

09:30 H34 CPP 47 Charged Soft Matter

09:30 H39 CPP 48 (Hydro)gels and Elastomers

09:30 H40 CPP 49 Colloids and Complex Liquids III

DF

09:30 H32 DF 21 **Sessions**
Resistive Switching (jointly with DF, KR, HL)

Friday, March 15, 2013

DF

10:30 Poster D DF 22 Poster II

DS

Sessions
 08:30 H1 DS 33 Plenary Talk: Caroline Ross
 09:30 H32 DS 34 Resistive Switching (jointly with DF, KR, HL)
 09:30 H8 DS 35 Application of Thin Films

DY

Sessions
 09:30 H48 DY 35 Brownian Motion and Transport
 09:30 H44 DY 36 Statistical Physics in Biological Systems IV (joint with BP)

HL

Sessions
 09:15 H2 HL 93 Photovoltaics (HL, jointly with CPP, O)
 09:30 H13 HL 94 Quantum wires and nanocrystals: Optical properties
 09:30 H14 HL 95 Spintronics/Quantum information: Vacancies in diamond and SiC (HL, jointly with TT)
 09:30 H15 HL 96 GaN: Growth and doping
 09:30 H16 HL 97 ZnO
 09:30 H18 HL 98 Topological insulators (TT, jointly with DS, HL, MA, O)
 09:30 H20 HL 99 Transport: Spintronics and magnetotransport 2 (TT, jointly with HL, MA)
 09:30 H32 HL 100 Resistive switching (DS, jointly with DF, HL, KR)
 10:30 H17 HL 101 Graphene: Preparation and characterization II (O, jointly with HL, TT)
 11:15 H13 HL 102 Quantum dots and wires: Transport

KR

Session
 09:30 H32 KR 7 Resistive Switching (DS jointly with DF, KR, HL)

MA

Sessions
 09:30 H18 MA 46 Topological Insulators 5 (jointly with DS, HL, MA, and O)
 09:30 H20 MA 47 Transport: Spintronics, Magnetotransport 2, (jointly with HL & MA)
 09:30 H23 MA 48 Spin-dependent Transport Phenomena
 09:30 H22 MA 49 Magnetization Dynamics III of 3
 10:30 Poster D MA 50 Poster II

O

Invited Talks
 09:30 H36 O 82.1 Plasmons, forces and currents in atomic and molecular contacts
 •Richard Berndt
 13:15 H36 O 92.1 Room-temperature electron spin filtering by ordered thin films of helical organic molecules
 •Helmut Zacharias

Friday, March 15, 2013

O

Sessions

09:30	H36	O 82	Invited Talk: Richard Berndt
09:30	H1	O 83	Frontiers of Electronic Structure Theory: Discovery of Novel Functional Materials (SYES, jointly with DS, HL, MA, MM and TT)
09:15	H2	O 84	Photovoltaics (jointly with CPP, DS and HL)
09:30	H18	O 85	Transport: Topological Insulators (jointly with DS, HL, MA, and TT)
10:30	H36	O 86	Plasmonics and Nanooptics VI
10:30	H31	O 87	Focussed Session: Solid-liquid Interfaces III
10:30	H38	O 88	Molecular Films
10:30	H33	O 89	Surface Dynamics II
10:30	H45	O 90	Semiconductor Substrates
10:30	H17	O 91	Graphene: Preparation and Characterization II (jointly with HL, MA and TT)
13:15	H36	O 92	Invited Talk: Helmut Zacharias

TT

Sessions

09:30	H14	TT 66	Spintronics / Quantum Information: Vacancies in Diamond and SiC (jointly with HL)
09:30	H18	TT 67	Topological Insulators 5 (jointly with DS, HL, MA, and O)
09:30	H20	TT 68	Transport: Spintronics, Magnetotransport 2 (jointly with HL and MA)
09:30	H21	TT 69	Superconductivity: Fe-based Superconductors – Theory
09:30	H24	TT 70	Correlated Electrons: General Theory 2
10:30	H17	TT 71	Graphene – Preparation and Characterization 2 (jointly with DS, HL, MA, and O)
10:45	H20	TT 72	Nanomechanics (jointly with BP, DF, and DY)
11:45	H20	TT 73	Fluctuations and Noise

LT

Invited Talks

09:00	H4	LT 1.1	Unterricht gezielt auf beabsichtigte Lernprozesse ausrichten •Bernhard Gerber
10:00	H4	LT 1.2	Die Quantenphysik in der Jahrgangsstufe 10 •Bernadette Schorn
11:00	H4	LT 1.3	milq – Moderne Quantenphysik in der Schule •Rainer Müller
14:00	H4	LT 2.1	Die Faszination der Quantentheorie – Stoff für den Schulunterricht? Ideen zur Verbesserung der Theorieausbildung zukünftiger Physiklehrer •Peter Schmüser
15:00	H4	LT 2.2	Gravitationslinsen – Fata Morgana am Sternenhimmel? •Karl-Heinz Lotze
16:00	H4	LT 2.3	Power-to-Gas – ein Langzeitspeicher für die Energiewende oder wie Wind- und Solarenergie zur Primärenergie wird •Michael Sterner
09:00	H11	LT 5.1	Schülervorstellungen und ihre Bedeutung im naturwissenschaftlichen Sachunterricht der Grundschule •Kim Lange, Anne Ewerhardy

Friday, March 15, 2013

LT

10:15	H35	LT 6.1	Optische Phänomene und Gesetzmäßigkeiten in der Grund- und Mittelschule •Anja Schödl, Julia Schönhofer, Anja Göhring
10:15	Ph 8.2.06	LT 7.1	Elektrizitätslehre in der Grund- und Mittelschule •Anja Göhring, Werner Maier, Björn Braun, Maria Kainzmaier
10:15	H6	LT 8.1	Schwimmen und Sinken – naturwissenschaftliches Lernen in der Grundschule •Anne Ewerhardy, Kim Lange
10:15	T. Chemie	LT 9.1	Waschen und Reinigen als Unterrichtsthema in der Grund- und Mittelschule •Astrid Brandl, Inken Rebentrost, Markus Hamberger
14:00	H35	LT 10.1	Optische Phänomene und Gesetzmäßigkeiten in der Grund- und Mittelschule •Julia Schönhofer, Anja Schödl, Anja Göhring
14:00	Ph 8.2.06	LT 11.1	Elektrizitätslehre in der Grund- und Mittelschule •Werner Maier, Anja Göhring, Björn Braun, Maria Kainzmaier
13:00	H6	LT 12.1	Schwimmen und Sinken – naturwissenschaftliches Lernen in der Grundschule •Anne Ewerhardy, Kim Lange
14:00	T. Chemie	LT 13.1	Waschen und Reinigen als Unterrichtsthema in der Grund- und Mittelschule •Inken Rebentrost, Markus Hamberger, Astrid Brandl

Sessions

09:00	H4	LT 1	Lehrtage I
14:00	H4	LT 2	Lehrtage II
09:00	H11	LT 5	Grund-/Mittelschule: Einführender Vortrag
10:15	H35	LT 6	Grund-/Mittelschule: Workshop 1.1
10:15	Ph 8.2.06	LT 7	Grund-/Mittelschule: Workshop 1.2
10:15	H6	LT 8	Grund-/Mittelschule: Workshop 1.3
10:15	T. Chemie	LT 9	Grund-/Mittelschule: Workshop 1.4
14:00	H35	LT 10	Grund-/Mittelschule: Workshop 2.1
14:00	Ph 8.2.06	LT 11	Grund-/Mittelschule: Workshop 2.2
13:00	H6	LT 12	Grund-/Mittelschule: Workshop 2.3
14:00	T. Chemie	LT 13	Grund-/Mittelschule: Workshop 2.4

Saturday, March 16, 2013

LT

Invited Talks

09:00	H4	LT 3.1	Schneller als eine Lichtschwingung •Rupert Huber
10:00	H4	LT 3.2	Der mögliche Beitrag von Lageenergiespeichern zur Bewältigung der Energiewende •Eduard Heindl
11:00	H4	LT 3.3	Das Solaraktivhaus, Möglichkeiten und Grenzen der autarken Energieversorgung mit Strom und Wärme •Georg Dasch
14:00	H4	LT 4.1	Mechanik in Jahrgangsstufe 7 des bayerischen G8 •Thomas Wilhelm
15:00	H4	LT 4.2	Sport und Physik •Leopold Mathelitsch

Sessions

09:00	H4	LT 3	Lehrertage III
14:00	H4	LT 4	Lehrertage IV
