Plenary and Prize Talks, Joint Symposia, Tutorials: Dresden 2014

Plenary and Prize Talks

Mo, 08:30	PV I	Plenarvortrag: Electronic properties of graphene based van der Waals heterostructures — •Philip Kim
Mo, 14:00	PV II	Plenarvortrag: Diffraction before destruction: Imaging proteins with X-ray free-electron laser pulses — •Henry Chapman
Mo, 14:00	PV III	Plenarvortrag: Structure-Property-Function relationships in Molecular Electronic Materials and their application to Photovoltaics — •Jenny Nelson, Jarvist Frost, Anne Guilbert, Florian Steiner, Sheridan Few, Michelle Vezie, Valerie Vaissier, Thomas Kirchartz, and Roderick Mackenzie
Di, 08:30	PV IV	Plenarvortrag: Coherent Mechanics: Tuning and Playing an Electric Nano-Guitar — •Jörg P. Kotthaus
Di, 17:40	PV VIII	Plenarvortrag: Using Spectroscopy to Probe Layered Materials — •Mildred Dresselhaus
Mi, 08:30	PV IX	Plenarvortrag: The Spin on Electronics! Science and Technology of spin currents in nano-materials and nano-devices — •Stuart Parkin
Mi, 14:00	PV XI	Plenarvortrag: Motions in the molecular machinery powering life — •Gerhard Hummer
Mi, 14:00	PV XII	Plenarvortrag: Materials physics on its way to in-depth understanding of real materials — •Reiner Kirchheim
Do, 14:00	PV XVI	Plenarvortrag: Understanding branched flow: from semiconductors to freak waves — •Eric Heller
Do, 14:00	PV XVII	Plenarvortrag: Optical Antennas for Enhanced Light-Matter Interactions — •Lukas Novotny
Fr, 08:30	PV XVIII	Plenarvortrag: Optical Tweezers: Gene Regulation, Studied One Molecule at a Time — •Steven Block

Mi, 20:00	PV XIII	Abendvortrag: GPS ist mehr als Navigation - die Vermessung des Systems Erde mit Millimetergenauigkeit — •Markus Rothacher

Mo, 13:15	CPP 1.1	Hauptvortrag: Semicrystalline polymers - pathway of crystallization and deformation properties — •Gert Strobl (Robert Wichard Pohl Preis)
Di, 13:15	PV V	Preisträgervortrag: Magnetism and electronic correlations in real materials — •Alexander Lichtenstein (Max Born Prize)
Mi, 12:30	O 52.1	Preisträgervortrag: Spectroscopy and microscopy of graphene on metals — •Yuriy Dedkov (Gaede Prize)
Mi, 13:15	PV X	Preisträgervortrag: Electrically driven exciton-polariton lasers — •Sven Höfling (Walter Schottky Prize)
Do, 13:15	PV XV	Preisträgervortrag: Semiconductor Hetero-, Nano- and Quantum-Systems — •Gerhard Abstreiter (Stern Gerlach Medal)
Mo, 17:15	SOE 5.2	Preisträgervortrag: Complex (social) networks: from description to prediction — •Roger Guimera (Young Scientist Award for Socio- and Econophysics)

Di, 14:00	PV VI	Spezialvortrag: Herausforderung Lehramts-Studium Physik — •Siegfried Grossmann
Di, 15:00	PV VII	Spezialvortrag: The German Research Foundation -- a short overview — •Cosima Schuster and Michael Mössle

Joint Symposia

Montag Vormittag:

SYSD: SKM Dissertation-Prize 2014

SYMO: Magnetic/organic interfaces and molecular magnetism
MA (federführend), CPP, DS, HL, O, TT
Organisation: Prof. M. Aeschlimann (TU Kaiserslautern), Prof. J. Schnack (Uni Bielefeld), Prof. O. Waldmann (Uni Freiburg), Prof. D. Zahn (TU Chemnitz)

Montag Nachmittag:

SYCM: Crystallography in Materials Science
KR (federführend), DF, MA, MI
Organisation: PD Leonore Wiehl (Uni Frankfurt), Prof. Markus Braden (Uni Köln)

Dienstag Vormittag:

SYSG: Spin Properties of Graphene
HL (federführend), DS, MA, O, TT
Organisation:
Prof. Markus Morgenstern (RWTH Aachen)

Mittwoch Vormittag:

SYMS: Molecular Switches and Motors at Surfaces
O (federführend), BP, CPP
Organisation: Prof. Martin Wolf (FHI Berlin), Prof. Axel Groß (Uni Ulm)

Mittwoch Nachmittag:

SYEE: Energy Meets Economy: Dynamics and Statistics of Future Energy Systems
SOE (federführend), DY, jDPG
Organisation: Prof. Marc Timme (MPI Göttingen), PD Jens Christian Claussen (Jacobs-Universität Bremen)

Donnerstag Vormittag:

SYCP: The Collapsed State of Polymers:
From Physical Concepts to Applications and Biological Systems
CPP (federführend), BP, DY
Organisation: Prof. H. Schiessel (Uni Leiden), Prof. J.U. Sommer (IPF Dresden)

Donnerstag Nachmittag:

SYGP: Stochastic Dynamics of Growth Processes in Biological and Social Systems
DY (federführend), BP, SOE
Organisation: Dr. Tobias Galla (Uni Manchester), Prof. Arne Traulsen (MPI Plön)

Freitag Vormittag:

SYOM: One-dimensional Metals: Reality or Fiction
DS (federführend), HL, O, TT
Organisation: Prof. N. Esser (ISAS), Prof. H. Pfnür (Uni Hannover), Prof. C. Tegenkamp (Uni Hannover)

Tutorials: Sunday, 30 March 2014

(1) Thermoelectricity - The Quest for a High Figure of Merit (TT)

16:00	TUT 1.1	Tutorial: Thermoelectric Effects: Basic Aspects, Boltzmann Theory, Onsager Relations — •Arthur Ernst
16:50	TUT 1.2	Tutorial: Thermal Transport Measurements at the Nanoscale — •Saskia F. Fischer
17:40	TUT 1.3	Tutorial: High Temperature Thermoelectric Power Generators: Materials and Devices — •Anke Weidenkaff and Wenjie Xie

(2) Advanced Algorithms for Correlated Quantum Matter (TT)

16:00	TUT 2.1	Tutorial: DMRG and Entanglement Scaling — •Fabian Heidrich-Meisner
16:50	TUT 2.2	Tutorial: Introduction to Tensor Networks — •Roman Orus
17:40	TUT 2.3	Tutorial: Quantum Monte Carlo Methods — •Stefan Wessel

(3) Non-Equilibrium Dynamics (AGjDPG with DY)

16:00	TUT 3.1	Tutorial: Nonlinear deterministic and nonlinear stochastic processes as models in non-equilibrium physics — •Holger Kantz
16:45	TUT 3.2	Tutorial: Stochastic Thermodynamics — •Udo Seifert
17:30	TUT 3.3	Tutorial: Active motion at low Reynolds number — •Holger Stark

(4) Characterization of Solids with Positrons (MI)

16:00	TUT 4.1	Tutorial: Positrons probing matter: What we learn about lattice defects and electronic structure using positron beams — •Christoph Hugenschmidt
16:45	TUT 4.2	Tutorial: Theoretical electron and electron-positron momentum densities of transition metals and their compounds in the presence of many-body correlation effects — •Liviu Chioncel
17:30	TUT 4.3	Tutorial: Positron annihilation studies at an electron accelerator: From thin films to bulk samples and 3-D imaging — •Andreas Wagner

(5) Energy Materials (HL with MA)

16:00	TUT 5.1	Hauptvortrag: Von Lithium zu Lithium-Ionen-Batterien und zurück — •Martin Winter
16:35	TUT 5.2	Hauptvortrag: Magnetic materials for green energy applications — •Oliver Gutfleisch
17:20	TUT 5.3	Hauptvortrag: Recent developments of dye sensitized and mesoscopic solar cells — •Toby Meyer
17:55	TUT 5.4	Hauptvortrag: Perspectives of an artificial leaf based on inorganic semiconductors for water splitting: Device structure, interface engineering, catalytic demands — •Wolfram Jaegermann