

# Gemeinsame Jahrestagung in Linz, 03. - 06. September 2013

## Réunion commune à Linz, 3 - 6 septembre 2013



Österreichische  
Physikalische  
Gesellschaft



swiss physical society



### Programmübersicht - Résumé du programme

Das vollständige Programm wird allen Teilnehmern am Tagungssekretariat abgegeben.

Hinweise:

- Je Beitrag wird nur der präsentierende Autor aufgeführt.
- Die Postersitzung ist am Mittwoch und Donnerstag von 18:30 - ca. 20:00 (mit Apéro) sowie am Freitag von 12:00 - 13:30.
- (p) = Plenarsprecher, (i) = eingeladener Sprecher

Le programme final complet sera distribué aux participants au stand du secrétariat de la conférence.

Indications:

- seul le nom de l'auteur présentant la contribution a été indiqué.
- la session poster a lieu le mercredi et jeudi de 18.30 à env. 20.00 (avec apéro) ainsi que le vendredi de 12:00 à 13:30.
- (p) = orateur de la session plénière, (i) = orateur invité

#### Special: Energy Day 2013

Tuesday, 03.09.2013, HS 1

Time	ID	ENERGY DAY Chair: Werner Spitzl, AK Energie
10:00	21	Energiespeicherung: Das Vorwort zum Energietag 2013 <i>Werner Spitzl</i>
10:15	22	Zukünftiges Energiesystem benötigt neue Lösungsansätze besonders bei der Speicherung <i>Horst Steinmüller</i>
10:45	23	Herausforderungen für den Betrieb des kontinentaleuropäischen Verbundnetzes <i>Martin Geidl</i>
11:15		Coffee Break
11:30	24	Wasserstoffspeicherung durch Magnesiumhydrid <i>Michael Zehetbauer</i>
12:00	25	Wieviel erneuerbare Energie muss zukünftig gespeichert werden? Analyse des zukünftigen Speicherbedarfs in Österreich mit einem hohen Anteil an erneuerbarer Energie. <i>Gerfried Jungmeier</i>
12:30		Diskussion
12:45		Lunch
		Chair: Brigitte Pagana-Hammer, AK Energie
13:30	26	Technologische und Ökonomische Aspekte der Elektrochemischen Energiespeicherung <i>Stefan Koller</i>
14:00	27	Smart Grid und das Hauskraftwerk <i>Michael Zahradnik</i>
14:30	28	Superconducting Magnetic Energy Storage <i>Bartłomiej A. Glowacki</i>
15:00	29	Die Lithium-Ionen Batterie – von der Knopfzelle zur Traktionsbatterie <i>Michael Sternad</i>
15:30		Diskussion
15:50		Schlußbemerkungen <i>Brigitte Pagana-Hammer</i>
16:00		END
18:00		RECEPTION
19:00		OFFICIAL OPENING OF THE JOINT ANNUAL MEETING OF ÖPG, SPS, ÖGAA AND SSAA
		PUBLIC LECTURE Chair: Günther Bauer, JKU Linz
19:15	11	Using Nanostructures toward Achieving Energy Sustainability <i>Mildred Dresselhaus, MIT (p)</i>
20:30		END

#### Special: Thermoelectrics

Tuesday, 03.09.2013, HS 4

Time	ID	THERMOELECTRICS Chair: Armando Rastelli, JKU Linz
15:15	31	From Superconductivity Towards Thermoelectricity: Germanium Based Skutterudites <i>E. Bauer (i)</i>
15:45	32	Half-Heusler compounds for thermoelectricity <i>Sascha Populoh</i>
16:00		Coffee Break
16:30	33	Seebeck Effect in the Kondo Insulator CeRu <sub>4</sub> Sn <sub>8</sub> under Magnetic Field <i>Valentina Martelli</i>
16:45	34	Seebeck-effect in organic semiconductors <i>Kristin Willa</i>
17:00	35	Crucial role of surface-segregation-driven intermixing on the thermal transport through planar Ge/Si superlattices <i>Peixuan Chen</i>
17:15	36	X-ray characterization of Si/Ge thermoelectric structures <i>Tanja Etzelstorfer</i>
17:30	37	Intermetallic transition metal clathrates <i>Andrey Prokofiev (i)</i>
18:00		END

ID	THERMOELECTRICS POSTER
41	Influence of process variables of ball milling and hot pressing on the thermoelectric performance of type I clathrates <i>Xinlin Yan</i>
42	Development of a Measuring Platform for Thermoelectric Properties of Nanowires <i>Günther Lientschnig</i>
43	<del>Thermoelectric properties of melt-spun SPS-sintered type-VIII-Ba<sub>9</sub>Ga<sub>16</sub>Sn<sub>90-x</sub>Ge<sub>x</sub> clathrates</del> <i>Petr Tomes</i> <span style="color: red;">Cancelled</span>
44	Experimental setup and sample processing for direct measurements of the cross-plane Seebeck coefficient of nanostructured Si/Ge materials <i>Lukas Nausner</i>
45	Melt spinning of CoSb <sub>3</sub> : e <sub>ect</sub> of microstructure on phonon thermal conductivity <i>Matthias Ikeda</i>
46	Thermoelectric properties of the anisotropic Kondo insulator CeRu <sub>4</sub> Sn <sub>8</sub> <i>Jonathan Haenel</i>
47	Resonant scattering induced thermopower peak in one dimensional disordered systems <i>Daniel Müller</i>

Thursday, 05.09.2013, HS 1

**Special: Photovoltaics**

Tuesday, 03.09.2013, HS 5

Time	ID	PHOTOVOLTAICS Chair: Markus Clark Scharber, JKU Linz
14:45	51	Theory of light-harvesting in photosynthesis: From structure to function Thomas Renger
15:15	52	Artificial Photosynthesis for the Storage of Chemical Energy Kerstin Oppelt
15:30	53	Ultrathin, lightweight, and flexible organic solar cells Matthew White
15:45	54	Colloidal Quantum dot photovoltaics: Tuning optoelectronic properties Philipp Stadler
16:00		Coffee Break
16:30	58	15 years of research on organic solar cells: lessons learned from 1 % to 10 % efficiency Christoph J. Brabec (i)
17:15	55	Organic nanocrystals from latent pigments for environmentally-friendly and biocompatible electronics Mykhailo Sytnyk
17:30	56	Metal sulfide nanoparticle/polymer hybrid solar cells Gregor Trimmel
17:45	57	Flexible Monocrystal Membrane Photovoltaic Membranes Axel Neisser
18:00		END

**Plenary Session**

Wednesday, 04.09.2013, HS 1

Time	ID	PLENARY SESSION I Chair: Christian Teichert, Uni Leoben
08:55		Welcome note
09:00	1	Plasmons, forces and currents in atomic and molecular contacts Richard Berndt, Uni Kiel (p)
09:40	2	Quantum simulation with Atoms, Ions and Molecules Peter Zoller, Uni Innsbruck (p)
10:20		Coffee Break
		Chair: Christophe Rossel, IBM Rueschlikon
10:50	3	The Quantum Way of Doing Computations Rainer Blatt, Uni Innsbruck (p)
11:30		Award Ceremony
12:30		Lunch
13:30		Topical Sessions
18:30		Postersession and Apéro
		PUBLIC LECTURE Chair: Rainer Blatt, Uni Innsbruck
20:00	12	Manipulation of single quantum systems Serge Haroche, Collège de France (p)
21:15		END

Time	ID	PLENARY SESSION II Chair: Heinz Krenn, Uni Graz
09:00	4	100 years Bohr's Atomic Model: Its birth and its importance in the rise of QM Jan Lacki, Uni Genève (p)
		Chair: Yann Alibert, Uni Bern
09:40	5	Exoplanets and their atmospheres Lisa Kaltenegger, MPI Heidelberg (p)
10:20		Coffee Break
		Chair: Stéphane Goyette, Uni Genève
10:50	6	Using Earth observation for Integrated Water Resources Management Douglas Cripe, GEO Secretariat Genève (p)
11:30	16	Winner of the ÖPG Boltzmann Award
12:00		General Assemblies
12:30		Lunch
13:30		Topical Sessions
18:30		Postersession (continued)
20:00		Conference Dinner

Friday, 06.09.2013, HS 1

Time	ID	PLENARY SESSION III Chair: Martin Pohl, Uni Genève
09:00	7	LHC - The first three years Rainer Wallny, ETH Zürich (p)
		Chair: Christian Rüegg, PSI Villigen & Uni Genf
09:40	8	Quantum phase transitions in condensed matter Silke Bühler-Paschen, TU Wien (p)
10:20		Coffee Break
		Chair: Georg Pabst, Uni Graz
10:50	9	Theoretical Insights into Structure of Animal Tissues Primož Zihelr, Uni Ljubljana (p)
11:30	17	Winner of the SPS ABB Award
12:00		Best Poster Awards, Closing Remarks
12:15		Postersession (continued), Lunch
13:30		Topical Sessions
15:30		END

**Careers for Physicists**

Thursday, 05.09.2013, K001A

Time	ID	CAREERS FOR PHYSICISTS Chair: Kai Hencken, ABB Baden
14:00	71	"Advanced Manufacturing", ein interessantes Feld für Physikerinnen und Physiker? Bernhard Braunecker (i)
14:30	72	What does a physicist do at ETH Zürich if he is not in research? Bernd Rinn (i)
15:00	73	On the Cutting Edge: Publication Dynamics and the Society of Scientific Journals Istvan Daruka
15:30		Coffee Break

16:00	74	A new generation of Physicists <i>Stefano Verginelli (i)</i>
16:30	75	Workshop: Wie? Mit Physik Karriere machen? <i>Josef Siess (i)</i>
17:00		<b>END</b>
18:30		<b>Postersession and Apéro</b>
20:00		<b>Conference Dinner</b>

### Physik und Schule

Wednesday, 04.09.2013, K269D

Time	ID	PHYSIK UND SCHULE Chair: Engelbert Stütz, JKU Linz
13:15	81	<b>Sexl-Preisträger: Preisvortrag 1</b>
13:35	82	<b>Sexl-Preisträger: Preisvortrag 2</b>
14:00	83	Hat Aristoteles doch recht? <i>Siegfried Bauer (i)</i>
		<b>PRÄMIERTE FACHBEREICH SARBEITEN</b> Chair: Leopold Mathelitsch, Uni Graz
15:00	84	Introduction to Rutherford Backscattering Spectrometry (RBS) <i>Maximilian Heinz Ruep</i>
15:15	85	Schwerelosigkeit und Mikrogravitation <i>Bianca Neureiter</i>
15:30		<b>Coffee Break</b>
16:00	86	Stringtheorie; Grundgedanken und ihr Einfluss auf Teilchenphysik und Kosmologie <i>Stefan Purkhart</i>
16:15	87	<b>Das Plusenergiehaus. Die Integration der erneuerbaren Energien in den urbanen Raum.</b> <i>Florian Hechenberger</i>
		Chair: Engelbert Stütz, JKU Linz
16:30	88	Präsentation des österreichischen Teams des IYPT 2013
16:50	89	Präsentation des österreichischen Teams der IPhO 2013
17:10		Sitzung des FA Physik und Schule
18:00		<b>ENDE</b>
18:30		<b>Postersession and Apéro</b>

ID	PHYSIK UND SCHULE POSTER
91	Construction, development and tests of a cost-effective force platform <i>Florian Rieder</i>
92	Schülervorstellungen zum Thema Strahlung <i>Martin Hopf</i>
93	Astrobiology as an Interdisciplinary Starting Point to Natural Sciences <i>Johannes Leitner</i>
94	Let's Play Physics! Making physics education physically - A project on the transit of the venus <i>Christina Rothenhäusler</i>
95	Nanophysik am Beispiel eines Rastertunnelmikroskops in der Schule <i>Thomas Möst</i>
96	Professionswissen Physiklehramtsstudierender in Österreich <i>Ingrid Krumphals</i>

### KOND

Wednesday, 04.09.2013, HS 5

Time	ID	I. MAGNETISM, SUPERCONDUCTIVITY AND QUANTUM CRITICALITY Chair: Silke Bühler-Paschen, TU Wien
13:30	101	Superconductivity in Materials without Inversion Symmetry <i>Ernst Bauer (i)</i>
14:00	102	<del>Quantum criticality of the heavy-fermion compound <math>\text{CeCoGe}_2\text{Si}_6</math></del> <i>Julio Larrea</i> Canceled
14:15	103	Strong Pressure Dependence of the Magnetic Penetration Depth in Single Crystals of the Heavy-Fermion Superconductor $\text{CeCoIn}_5$ Studied by Muon Spin Rotation <i>Ludovic Howald</i>
14:30	104	Electric and magnetic coupling of quantum-critical materials to a microwave coplanar waveguide resonator at milli-Kelvin temperatures <i>Diana Geiger</i>
14:45	105	Superconductivity and Quantum Criticality <i>Johan Chang (i)</i>
15:15	106	About the origin of frustration in the magnetism-driven multiferroic $\text{YBaCuFeO}_5$ <i>Mickael Morin</i>
15:30		<b>Coffee Break</b>
		<b>II. NEUTRONS AND SYNCHROTRON RADIATION FOR CONDENSED MATTER</b> Chair: Oskar Paris, Uni Leoben
16:00	111	X-ray absorption spectroscopy for element selective investigations of structure, valence and magnetism in doped oxides <i>Andreas Ney (i)</i>
16:30	112	Growing semiconductor nitrides into spintronic and magneto-optic materials <i>Thibaut Devillers</i>
16:45	113	X-ray strain microscopy of inhomogeneously strained Ge micro-bridges <i>Tanja Etzelstorfer</i>
17:00	114	A New Crystalline Phase of Gallium Phosphide: Wurtzite Nanowires Investigated by X-ray Diffraction <i>Dominik Kriegner</i>
17:15	115	In-situ synchrotron SAXS studies on Colloidal Nanocrystal Formation <i>Rainer T. Lechner</i>
17:30	116	In-situ and ex-situ study of mesostructured silica synthesized in the gas phase <i>Barbara Sartori</i>
17:45	117	Humidity Driven Pore-Lattice Deformation in Ordered Mesoporous Thin Films <i>Parvin Sharifi</i>
18:00	118	Radiation assisted material synthesis and processing by deep X-ray lithography <i>Benedetta Marmiroli</i>
18:15	119	Novel insights into photoemission from solids: Surface RABBITT yields absolute delays and reveals temporal structure beyond transport phenomena. <i>Luca Castiglioni</i>
18:30		<b>Postersession and Apéro</b>
20:00		<b>Public Lecture</b>

Thursday, 05.09.2013, HS 5

Time	ID	III. SOFT MATTER AND OTHER SYSTEMS I (SHARED WITH THE BIOPHYSICS SESSION) Chair: Georg Pabst, Uni Graz
13:30	121	Equilibrium and flow of cluster-forming complex fluids <i>Christos N. Likos (i)</i>
14:00	122	Optimized Fourier Monte Carlo Simulation of Solid and Hexatic Membranes <i>Andreas Troester</i>
14:15	123	Biomimetic folding particle chains <i>Peter Oostrum</i>
		IV. SOFT MATTER AND OTHER SYSTEMS II Chair: Oskar Paris, Uni Leoben
14:30	124	Small Angle Scattering Study of the self-assembly of an amphiphilic designer peptide from the monomer to a helical superstructure <i>Heinz Amenitsch</i>
14:45	125	Liquid Structure and the Noncoincidence Effect of Liquid Dimethyl Sulfoxide Revisited <i>Maurizio Musso</i>
15:00	126	Generation of multiply twinned Ag clusters (n<6000) in superfluid helium nanodroplets <i>Philipp Thaler</i>
15:15	127	The characterization of defects in silicon by Electron Beam Induced Current (EBIC) measurements <i>Peter Hadley</i>
15:30		<b>Coffee Break</b>
		V. SEMICONDUCTORS Chair: Peter Hadley, TU Graz
16:00	131	Structural Investigation of Novel Semiconductor Systems by Transmission Electron Microscopy <i>Heiko Groiss (i)</i>
16:30	132	Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire <i>Phani Peddibhotla</i>
16:45	133	Structural and magnetic properties of ZnO with doping beyond the coalescence limit <i>Verena Ney</i>
17:00	134	$\mu$ -Raman investigation of heterogeneously strained Si nanostructures <i>Martin Süess</i>
17:15	135	Normally-off GaN MOSHEMTs with thin barrier on Si substrate <i>Alexander Alexewicz</i>
17:30	136	Spin dependent electron response functions <i>Raphael Hobbiger</i>
17:45	137	Creation and detection of entanglement in helical edge states using a single-electron source <i>Patrick Hofer</i>
18:00	138	Experimental observation of the even-denominator fractional quantum-Hall effect in suspended graphene bilayers <i>DongKeun Ki</i>
18:15	139	Magneto-optical spectroscopy of epitaxial graphene <i>Iris Crassee (talk given by Alexey Kuzmenko)</i>
18:30		<b>Postersession and Apéro</b>
20:00		<b>Conference Dinner</b>

Friday, 06.09.2013, HS 5

Time	ID	VI. CONDENSED MATTER COMPUTATIONAL AND THEORY Chair: Christian Rüegg, PSI Villigen & Uni Genf
13:30	141	Computer simulations of strongly correlated quantum matter <i>Andreas Läuchli (i)</i>
14:00	142	A variational cluster approach to strongly correlated quantum systems out of equilibrium <i>Martin Nuss</i>
14:15	143	Exotic Bound States in Low Dimensions <i>Jelena Klinovaja (i)</i>
14:45	144	Berry Phase Effect in Solids <i>Gerhard Brunthaler</i>
15:00	145	First-principle investigation of topological transition in $\alpha$ -Sn nanocrystals <i>Sebastian Kufner</i>
15:15	146	A modified Griffith model for explaining Liquid Metal Embrittlement in the Fe/Zn system <i>Klaus-Dieter Bauer</i>
15:30		<b>END</b>

ID	KOND POSTER
151	Conduction and Valence Band States of Sb-Mediated Ge Quantum Dots in n-type Si Studied by Deep Level Transient Spectroscopy <i>Victor Tapio Rangel Kuoppa</i>
152	Ultra-small-angle polarised neutron scattering on magnetic structures <i>Erwin Jericha</i>
153	Low temperature magnetic structure of multiferroic YBaCuFeO <sub>5</sub> <i>Mickael Morin</i>
154	Dynamic stabilization of nonequilibrium domain configurations in magnetic squares with high amplitude excitations <i>Stephanie Stevenson</i>
155	Parametric polariton scattering in coupled planar microcavities <i>Patrick Mai</i>
156	Magnetism on the route of compensated to remnant magnetism: SQUID- and Raman-data on NiO-nanoparticles <i>Julia Weber</i>
157	Skyrmion Dynamics in Perpendicular Magnetic Anisotropy Nanostructures <i>Christoforos Moutafis</i>
158	Neutron diffraction study of lattice damage induced by tritium decay in palladium tritide <i>Gerhard Krexner</i>
159	Effects of Geometrical Confinement on Li and Na in Nanoporous Glasses <i>Gerhard Krexner</i>
160	SiGe self-assembled nanostructures: from surface science to quantum transport <i>Georgios Katsaros</i>
161	Enhanced 1.54 $\mu\text{m}$ -Er <sup>3+</sup> photoluminescence through contact coupling with Ge nanostructures <i>J. Martín-Sánchez</i>
162	Refinement of the eutectoid region of the Fe-Ru phase diagram using thermodynamic and metallurgical approaches <i>Gabriela Schimo</i>
163	Conducting Cellulose Fiber Networks as Flexible Substrate for Optoelectronic Applications <i>Bettina Friedel</i>



## Surfaces, Interfaces and Thin Films

Wednesday, 04.09.2013, HS 1

Time	ID	<b>I. SURFACES + ORGANIC THIN FILMS</b> Chair: Christian Teichert, Uni Leoben
13:30	201	Isolated Pd Sites on PdGa Model Catalyst Surfaces Jan Prinz
13:45	202	Metal clusters and simple adsorbates on ultra-thin ZrO <sub>2</sub> /Pt <sub>3</sub> Zr Joong Il J. Choi
14:00	203	Mechanics of single molecules Ernst Meyer (i)
14:30	204	Initial steps of indigo film growth on silicon dioxide Boris Scherwitzl
14:45	205	Tuning the 1D-self-assembly of dicyano-functionalized helicene building-blocks Aneliia Shchyrba
15:00	206	Using polarized light in PEEM Thorsten Wagner
15:15	207	Substrate enhanced intermolecular dispersion: Pentacene on Cu(110) Thomas Ules
15:30		<b>Coffee Break</b>
		<b>II. THEORY + CLUSTERS</b> Chair: Ernst Meyer, Uni Basel
16:00	211	Ohmic contacts for resistance measurements of ultra-thin metal-on-silicon layers Bernhard Lutzer
16:15	212	Electrical and Physical Characterization of Interfacial Germanates in Ge-based MOS devices Ole Bethge
16:30	213	Numerical Simulations of a Capillarity Driven Morphological Transition on the Nanoscale Istvan Daruka
16:45	214	Reflectance Anisotropy spectrum of water covered Cu(110) surface studied from first principles Amirreza Baghbanpourasl
17:00	215	Organic Semiconductors Interfaces Explored With Ab-initio Electronic Structure Methods Peter Puschnig (i)
17:30	216	Solid-solid interfaces in metal oxide nanoparticle ensembles Oliver Diwald
17:45	217	Single gold nanoparticles as nanoscopic pH-sensors Cynthia Vidal
18:00	218	Efficient random lasing from star-shaped nanoparticles Johannes Ziegler
18:15	219	Growth of in-plane SiGe nanowires Hannes Watzinger
18:30		<b>Postersession and Apéro</b>
20:00		<b>Public Lecture</b>

Thursday, 05.09.2013, HS 1

Time	ID	<b>III. METHODS</b> Chair: Peter Zeppenfeld, Uni Linz
13:30	221	On-surface magnetochemistry: controlling spins in adsorbed molecules by a chemical switch Christian Wäckerlin (i)

14:00	222	Electronic and Magnetic Properties of Surface-Supported Hydrocarbon Radicals Studied by Low-Temperature Scanning Tunneling Microscopy Stefan Müllegger
14:15	223	Using AFM nanoindentation to investigate mechanical properties of cellulose fibers in controlled humidities Christian Ganser
14:30	224	Helium Atom Scattering Measurements of the Sb(111) Surface Michael Mayrhofer-Reinhartshuber
14:45	225	Formation of HCN <sup>+</sup> in Heterogeneous Reactions of N <sup>2+</sup> and N <sup>+</sup> with Surface Hydrocarbons Martina Harnisch
15:00	226	Hydrogen Induced Buckling of Gold Films Baran Eren
15:15		<b>ÖPG-OGD Division Meeting</b>
15:30		<b>Coffee Break</b>
		<b>IV. OXIDES</b> Chair: Ulrike Diebold, TU Wien
16:00	231	Growth and Morphology of Epitaxial MgO Films on GaAs(001) Anirban Sarkar
16:15	232	Compositional and structural study of homoepitaxial-STO based oxides heterostructures Mathilde L. Reinle-Schmitt
16:30	233	Single Metal Adatoms on Fe <sub>3</sub> O <sub>4</sub> (001)-(√2x√2)R45° Gareth Parkinson (i)
17:00	234	Water Gas Shift Chemistry at the Fe <sub>3</sub> O <sub>4</sub> (001) Surface Oscar Gamba
17:15	235	STM and photoemission study of vacancies and hydroxyls at the SrTiO <sub>3</sub> (110)-(4x1) surface Stefan Gerhold
17:30	236	Interface Fermi states of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> and related heterostructures Claudia Cancellieri (i)
18:00	237	Combined Spectroscopic Study of the Evolution from the Metallic Surface State on SrTiO <sub>3</sub> to the Interface of LaAlO <sub>3</sub> /SrTiO <sub>3</sub> Nicholas Plumb
18:15	238	Field-induced migration of oxygen vacancies towards the surface of TiO <sub>2</sub> anatase(101) Martin Setvin
18:30		<b>Postersession and Apéro</b>
20:00		<b>Conference Dinner</b>

Friday, 06.09.2013, HS 1

Time	ID	<b>V. GRAPHENE + FLEXIBLE ELECTRONICS</b> Chair: Adolf Winkler, TU Graz
13:30	241	Observing Graphene grow: In-situ metrology for controlled growth of graphene and carbon nanotubes Bernhard Bayer
13:45	242	Electronic Structure of Atomically Precise Graphene Nanoribbons Pascal Ruffieux
14:00	243	Optical characterization of atomically precise graphene nanoribbons Richard Denk
14:15	244	Modification of exfoliated graphene: a case study Markus Kratzer (i)

14:45	245	In-situ thin film transistor fabrication: Electrical and surface analytical characterization <i>Roman Lassnig</i>
15:00	246	Valve metal anodic oxides for flexible electronics <i>Andrei Ionut Mardare</i>
15:15	247	Direct writing of high-k metal oxide dielectrics for flexible large area electronics <i>Christian M. Siket</i>
15:30		<b>END</b>

ID SURFACES, INTERFACES AND THIN FILMS POSTER		
251		Stabilization mechanisms at polar ZnO surfaces in ideal vacuum conditions: a SCC-DFTB study <i>Stefan Huber</i>
252		Shockley Surface States Revisited: A Comprehensive Density Functional Study <i>Bernd Kollmann</i>
253		Molecule-Substrate Hybridization Revealed by Angle-Resolved Photoemission Spectroscopy <i>Dario Knebl</i>
254		Initial growth of quinacridone on Ag(111) <i>Thorsten Wagner</i>
255		Adsorption of quinacridone on Cu(110) and Cu(110)-(2x1)O surfaces <i>Harald Zaglmayr</i>
256		Attachment-limited nucleation and growth of organic films: Pentacene on sputter modified mica (001) <i>Levent Tümbek</i>
257		Interfacial structure and device efficiency of an organic bi-layer heterojunction solar cell <i>Michael Zawodzki</i>
258		Adsorption of pentacene and perfluoro-pentacene on Cu(110) studied by reflectance difference spectroscopy <i>Johannes Gall</i>
259		Influences of rippled titania surfaces on to the growth morphologies of 6P thin films <i>Reinhold Wartbichler</i>
260		Hydrogen adsorption on TiO <sub>2</sub> anatase(101) <i>Benjamin Daniel</i>
261		Optical properties of metal doped ZnO thin films on glass and polymer substrates <i>Meirzhan Dosmailov</i>
262		Negative muonium as a local probe for the detection of the photo-induced inversion of a Ge surface layer <i>Thomas Prokscha</i>
263		Short-Term Metastable Effects in Amorphous Silicon Solar Modules <i>Ankit Mittal</i>
264		Oxide diffusion barriers on GaAs(001) <i>Shibo Wang</i>
265		Formation of Tungsten Oxide Nanolayers by (WO <sub>3</sub> ) <sub>3</sub> Cluster Condensation on Ag(100) <i>Thomas Obermüller</i>
266		Influence of the Ni content in AlCu alloy using the combinatorial approach. <i>Martina Hafner</i>
267		Susceptibility measurements of Ni clusters embedded in organic matrices <i>Mariella Denk</i>
268		Investigation of Single Ni Adatoms on the Magnetite (001) Surface <i>Roland Bliem</i>
269		Investigation of Exchange Coupled Composites with Scanning Transmission X-ray Microscopy <i>Phillip Wohlhüter</i>

270		Spin resolved photoemission spectroscopy of Fe <sub>3</sub> O <sub>4</sub> : The effect of surface structure <i>Jiri Pavelec</i>
271		Charge behavior on insulating monocrystalline surfaces by Kelvin probe force microscopy <i>Monika Mirkowska</i>
272		Stabilization of explosive compounds on metallic surfaces <i>Stefan Ralser</i>
273		Characterizations of HOPG and Graphene Treated with Low Temperature Hydrogen Plasma <i>Baran Eren</i>
274		Characterization of thin two-element compound material films by time-of-flight Low Energy Ion Scattering <i>Dietmar Roth</i>
275		Indication of phonon-assisted electron-hole relaxations on Sb(111) and Bi(111) in iHAS measurements <i>Patrick Kraus</i>
276		Determination of atmospheric corrosion of coated steel surfaces by in situ infrared reflection absorption spectroscopy (IRRAS) <i>Maurizio Musso</i>
277		Al-Si thin films for hydrogen reference materials <i>Cezarina Cela Mardare</i>
278		<b>Reactive co-sputtered Cu based thin film oxide libraries</b> <i>Wolfgang Burgstaller</i>

## Nuclear, Particle- and Astroparticle Physics

Wednesday, 04.09.2013, HS 6

Time	ID	I. LHC PHYSICS I Chair: Martin Pohl, Uni Genève
13:30	301	Search for a Higgs-like Boson decaying into bottom quarks <i>Philipp Eller</i>
13:45	302	Search for long lived charged and massive particles at LHCb detector <i>Thi Viet Nga La</i>
14:00	303	Cancelled
14:15	304	Search for Higgs boson production in supersymmetric cascades using fully hadronic final states <i>Mario Masciovecchio</i>
14:30	305	Search for supersymmetry in hadronic final states with MT2 at CMS <i>Hanns Jörg Weber</i>
14:45	306	<del>Search for supersymmetry in events with two opposite sign same flavor leptons, jets and missing energy</del> <del>Marco Andrea Buchmann</del> Cancelled
15:00	307	Application of CMS and ATLAS Simplified Models Results to Theories Beyond the Standard Model (BSM) <i>Ursula Laa</i>
15:15	308	Measurement of quarkonium polarization at CMS <i>Valentin Knünz</i>
15:30		<b>Coffee Break</b>
		II. ASTROPARTICLE AND NON-ACCELERATOR PHYSICS Chair: Eberhard Widmann, ÖAW Wien
16:00	311	Neutron Capture Measurements on <sup>62</sup> Ni, <sup>63</sup> Ni and <sup>197</sup> Au and their Relevance for Stellar Nucleosynthesis <i>Claudia Lederer (i)</i>

16:30	312	Latest Results of Searches for Point and Extended Sources with Time Independent and Time Dependent emissions of Neutrinos with the IceCube Neutrino Observatory <i>Asen Christov (i)</i>
17:00	313	High resolution 3D-simulations of galactic cosmic ray propagation using GALPROP <i>Michael Werner</i>
17:15	314	The cosmological constant puzzle: Vacuum energies from QCD to dark energy <i>Steven Bass</i>
17:30	315	Numerical 3D-hydrodynamic modelling of colliding winds in massive star binaries: particle acceleration and gamma-ray emission <i>Klaus Reitberger</i>
17:45	316	High precision tests of the Pauli Exclusion Principle for Electrons at LNGS <i>Johann Marton</i>
18:00	317	Search of neutrinoless double beta decay with the GERDA experiment <i>Giovanni Benato</i>
18:15	318	qBounce: A quantized frequency reference with gravity-resonance-spectroscopy <i>Gunther Cronenberg</i>
18:30		<b>Postersession and Apéro</b>
20:00		<b>Public Lecture</b>

Thursday, 05.09.2013, HS 6

Time	ID	III. PROTONS AND NEUTRONS <i>Chair: Johann Marton, ÖAW Wien</i>
13:30	321	Spectroscopy apparatus for the measurement of the hyperfine structure of antihydrogen <i>Chloe Malbrunot (i)</i>
14:00	322	A progress report on detector and analysis development for the Hbar-HFS experiment within the ASACUSA collaboration <i>Clemens Sauerzopf</i>
14:15	323	Beamline Simulations for cold Antihydrogens <i>Bernadette Kolbinger</i>
14:30	324	Gravitational interaction of antihydrogen: the AEGIS experiment at CERN <i>Michael Doser</i>
14:45	325	Design of the downstream interface in the AEGIS beamline <i>Sebastian Lehner</i>
15:00	326	Ultracold neutrons for fundamental physics experiments at the Paul Scherrer Institute <i>Bernhard Lauss (i)</i>
15:30		<b>Coffee Break</b>
		IV. PROTONS AND NEUTRONS, FLAVOR PHYSICS <i>Chair: Christoph Schwanda, ÖAW Wien</i>
16:00	331	Comparison of the Larmor precession frequencies of $^{199}\text{Hg}$ and ultracold neutrons in the nEDM experiment at PSI <i>Beatrice Franke</i>
16:15	332	Vector Cesium Magnetometer for the nEDM Experiment <i>Samer Afach</i>
16:30	333	The future neutron beta decay facility PERC <i>Jacqueline Erhart</i>
16:45	334	Tailoring of polarised neutron beams by means of spatial magnetic spin resonance <i>Erwin Jericha</i>
17:00	335	Flavour GUT models with $\theta_{13}^{\text{PMNS}} = \theta_c / \sqrt{2}$ <i>Constantin Sluka</i>

17:15	336	Angular analysis of $B_d \rightarrow K^* \mu^+ \mu^-$ with the ATLAS detector <i>Emmerich Kneringer</i>
17:30	337	Measurement of $B(B_s^0 \rightarrow J/\psi \phi)$ , $B(B_s^0 \rightarrow J/\psi f_2(1525))$ and $B(B_s^0 \rightarrow J/\psi K^* K^0)$ and a determination of the $B_s^0 \rightarrow J/\psi \phi$ polarization at the Belle experiment <i>Felicitas Thorne</i>
17:45	338	Measurement of $ V_{cb} $ through exclusive semileptonic $B \rightarrow D   \nu$ decays with a tagged fully reconstructed B meson at the Belle experiment <i>Robin Glattauer</i>
18:00	339	Monte Carlo simulation for Kaonic deuterium studies <i>Carolina Berucci</i>
18:15		
18:30		<b>Postersession and Apéro</b>
20:00		<b>Conference Dinner</b>

Friday, 06.09.2013, HS 6

Time	ID	V. LHC PHYSICS II AND DETECTORS <i>Chair: Rainer Wallny, ETH Zürich</i>
13:30	341	Measurement of Charged Particle Multiplicities with the ATLAS detector at the LHC <i>Wolfgang Lukas</i>
13:45	342	<del>Jet production in association with a Z boson at CMS</del> <i>Andrea Carlo Marini</i> <span style="color: red;">Cancelled</span>
14:00	343	The Readout System of the Belle II Silicon Vertex Detector <i>Richard Thalmeier</i>
14:15	344	Interstrip capacitance of double sided silicon strip detectors <i>Bernhard Leitl</i>
14:30	345	Over Saturation Behaviour of SiPMs at High Photon Exposure <i>Lukas Gruber</i>
14:45	346	FLUKA studies of hadron-irradiated scintillating crystals for calorimetry at the High-Luminosity LHC <i>Milena Quittnat</i>
15:00	347	Studies of radiation hardness of diamond strip trackers. <i>Felix Bachmair</i>
15:15	348	Irradiation Studies with the New Digital Readout Chip for the Phase I Upgrade of the CMS Pixel Detector <i>Jan Hoss</i>
15:30		<b>END</b>

ID	NUCLEAR, PARTICLE- AND ASTROPHYSICS POSTER	
351	Measurement of the thermal neutron flux at the source for ultracold neutrons at the Paul Scherrer Institute <i>Dieter Ries</i>	
352	An uncompensated magnetic field drifts in a search for an electric dipole moment of the neutron (nEDM) carrying out at Paul Scherrer Institute (PSI). <i>N Prashanth Pataguppi</i>	
353	High-volume production of Silicon strip detectors for particle physics experiments <i>Thomas Bergauer</i>	
354	Bethe-Salpeter Description of Light Pseudoscalar Mesons <i>Wolfgang Lucha</i>	
355	Lock-in based detection scheme for a hydrogen beam <i>Michael Wolf</i>	
356	Spin polarized atomic hydrogen beam source <i>Martin Diermaier</i>	

357	A neutron interferometric measurement and calculation of a phase shift induced by Laue transmission <i>Thomas Potocar</i>
358	Development of a novel muon beam line for next generation precision experiments <i>Kim Siang Khaw</i>
359	Measurements and simulations of magnetic field inside the ASACUSA Antihydrogen spin-flip cavity <i>Nazli Dilaver</i>
360	Neutron Reflectometry as Matura project - Verifying the Wave-Particle Dualism at the NARZISS Instrument at the Paul Scherrer Institut. <i>Carla Kreis</i>

### Theoretical Physics

Wednesday, 04.09.2013, K034D

Time	ID	THEORETICAL PHYSICS I <i>Chair: Jakob Yngvason, Uni Wien</i>
14:00	401	Lattice effects on vortex dynamics in strongly correlated electron systems <i>Sebastian Huber (i)</i>
14:30	402	Strongly Interacting Dipolar Quantum Gases <i>Robert Zillich (i)</i>
15:00	403	<b>Breaking supersymmetry</b> <i>Jean-Pierre Derendinger (i)</i>
15:30		<b>Coffee Break</b>
16:00	404	Maximally entangled sets <i>Barbara Kraus (i)</i>
16:30	405	Geometry as a Semiclassical Effect in a Quantum World - Emergent gravity from matrix models <i>Daniel Blaschke</i>
16:45	406	Electrostatic Interactions with Dielectric Samples in Scanning Probe Microscopies <i>Alexis Baratoff</i>
17:00		
18:30		<b>Postersession and Apéro</b>
20:00		<b>Public Lecture</b>

Thursday, 05.09.2013, K034D

Time	ID	THEORETICAL PHYSICS II <i>Chair: Gian Michele Graf, ETH Zürich</i>
13:30	411	Exterior Navier-Stokes problems in two dimensions: results and open questions <i>Peter Wittwer (i)</i>
14:00	412	Quantum many-body effects in transport through quantum dots: renormalization-group approaches <i>Sabine Andergassen (i)</i>
14:30	413	Atomic clocks: A mathematical physics perspective <i>Martin Fraas (i)</i>
15:00	414	Non-local perturbations of hyperbolic PDEs and QFT models on non-commutative spacetimes <i>Gandalf Lechner (i)</i>
15:30		<b>Coffee Break; END</b>

### Applied, Plasma and Geophysics

Wednesday, 04.09.2013, K153C

Time	ID	APPLIED PHYSICS <i>Chair: Ivo Furno, CRPP-EPFL</i>
13:30	451	Analysis of the Microscopic Fluid Flow of State-of-the-art Absorption Heat Pump Working Pairs under Operational Conditions <i>Johann Emhofer</i>
13:45	452	Entwicklung eines Kondensationswindkanals zur Untersuchung des Wärme- und Massetransports an Wärmeüberträgern <i>Sanda Seichter</i>
14:00	453	Precision Metrology with a Diode-Pumped Solid-State Laser Optical Frequency Comb <i>Stephane Schilt</i>
14:15	454	<del>Identifying Photoreaction Products in Cinnamate-based Photoalignment Materials</del> <i>Daniele Passerone Cancelled</i>
14:30	455	Experimental and simulated results on adsorption of molecules on fullerenes. <i>Alexander Kaiser</i>
14:45	456	Dual-Comb Spectroscopy based on Mid-IR Quantum-Cascade-Lasers Frequency-combs <i>Gustavo Villares</i>
15:00	457	<del>Coincidence Time Resolution (CTR) of PMT and SiPM and readout components</del> <i>Abulena Derisha Shabani Cancelled</i>
15:15		
15:30		<b>Coffee Break</b>
		<b>GEOPHYSICS AND APPLIED PHYSICS <i>Chair: Stéphane Goyette, Uni Genève</i></b>
16:00	461	Towards an integrated Observation System of the Black Sea catchment <i>Nicolas Ray (i)</i>
16:30	462	Cs-137 in Wildpilzen in Österreich: Verteilung und zeitliche Trends <i>Herbert Lettner</i>
16:45	463	Simulation of microwave propagation and absorption in heterogeneous rocks <i>Ronald Meisels</i>
17:00	464	Calculation of atom evaporation rates using entropy production maximisation <i>Frank Kassubek</i>
		<b>PLASMA PHYSICS <i>Chair: Ivo Furno, CRPP-EPFL</i></b>
17:15	465	Zeitaufgelöste schnelle Messungen von Wachstumsrate und Teilchentransport in HIPIMS-Plasmen <i>Christian Maszl</i>
17:30	466	Plasma fluctuations study in the new closed flux-surfaces configuration of the TORPEX experiment <i>Fabio Avino</i>
17:45	467	Simulating the effect of fine radial structures resulting from non-adiabatic passing electrons on turbulent transport in the ITG and TEM regimes <i>J. Dominski</i>
18:00	468	Characterization of rf discharges in non-thermal atmospheric pressure plasma jets using helium <i>Johann Laimer</i>
18:15		<b>END</b>
18:30		<b>Postersession and Apéro</b>
20:00		<b>Public Lecture</b>



ID	APPLIED, PLASMA AND GEOPHYSICS POSTER
481	Simulated insertion loss of noise barriers using the boundary element method <i>Holger Waubke</i>
482	In-line measurements of chlorine containing polymers in an industrial waste sorting plant by laser-induced breakdown spectroscopy <i>Norbert Huber</i>
483	Element analysis of complex materials by calibration-free laser-induced breakdown spectroscopy <i>Johannes D. Pedarnig</i>
484	Variable Capacitance Energy Harvesting <i>Robert Pichler</i>
485	Photoluminescence enhancement of Double-Walled Carbon Nanotubes filled with linear carbon chains <i>Philip Rohringer</i>
486	Inter-atomic Coulombic Decay (ICD) of clusters upon electron impact <i>Elias Jabbour Al Maalouf</i>
487	The Inner Structure of Jupiter's Moon Europa – Estimations on the Physical Conditions at the Sea Floor of its Potential Subsurface Ocean <i>Susanne Pollack-Drs</i>
488	The evolution of hotspots on Earth and Venus <i>Elisabeth Fahrngruber</i>
489	Comparing Characteristics of Polygonal Impact Craters on Mercury and Venus <i>Gerhard Weihs</i>
490	Modeling the evolution and fate of early Mars' hypothesized ocean <i>Gabor Imre Kiss</i>

## Atomic Physics and Quantum Optics

Wednesday, 04.09.2013, HS 4

Time	ID	ATOMIC PHYSICS AND QUANTUM OPTICS I <i>Chair: NN</i>
13:30	501	Measuring higher-order interferences with a five-path interferometer <i>Thomas Kauten</i>
13:45	502	Extraction of Ionic Cores From Charged Helium Nanodroplets <i>Michael Renzler</i>
14:00	503	Probing Non-Equilibrium Dynamics of Isolated Quantum Many-Body Systems <i>Bernhard Rauer</i>
14:15	504	Buffer gas cooling of atoms and molecules <i>Sarah Skoff</i>
14:30	505	Spectroscopic and Theoretical Studies of Chromium Doped Helium Nanodroplets <i>Andreas Kautsch</i>
14:45	506	A graph state formalism for mutually unbiased bases <i>Christoph Spengler</i>
15:00	507	Strong coupling between single atoms and non-transversal photons <i>Christian Junge</i>
15:15	508	Interactions of He <sup>-</sup> in doped He droplets <i>Michael Neustetter</i>
15:30		Coffee Break

Time	ID	ATOMIC PHYSICS AND QUANTUM OPTICS II <i>Chair: NN</i>
16:00	511	Decoration of anionic and cationic fullerenes with polar and apolar molecules. <i>Nikolaus Weinberger</i>
16:15	512	Nonequilibrium dynamics, Optimal Control and Nanofibers on an Atom Chip <i>Dominik Fischer</i>
16:30	513	A Spin Polarised Temperature Controlled Atomic Hydrogen Beamline <i>Peter Caradonna</i>
16:45	514	Theoretical Investigation of Excited States of the Diatomic Molecule LiCa <i>Johann Pototschnig</i>
17:00	515	Coherent manipulation of cold cesium atoms in a nanofiber-based two-color dipole trap <i>Daniel Reitz</i>
17:15	516	Mapping Magnetic Nanostructures Using Radical Pair Reactions <i>Jofre Espígule Pons</i>
17:30	517	Merging two immiscible BECs of Rb and Cs for optimized production of RbCs ground-state molecules <i>Lukas Reichsöllner</i>
17:45	518	Cavity cooling of free silicon nanoparticles in high vacuum <i>Peter Asenbaum</i>
18:00	519	Integrated Mach-Zehnder interferometer for Bose-Einstein condensates <i>J.-F. Schaff</i>
18:15	520	Entanglement Swapping over a 143 km free-space link <i>Thomas Herbst</i>
18:30		Postersession and Apéro
20:00		Public Lecture

Thursday, 05.09.2013, HS 4

Time	ID	ATOMIC PHYSICS AND QUANTUM OPTICS III <i>Chair: NN</i>
13:30	521	Tenfold reduction of Brownian noise in high-reflectivity optical coatings <i>Garrett D. Cole</i>
13:45	522	Doublon stability and decay mechanisms <i>M. J. Mark</i>
14:00	523	Cavity cooling of an optically levitated nanoparticle <i>Florian Blaser</i>
14:15	524	Entanglement properties of locally maximally entangleable states <i>Martí Cuquet</i>
14:30	525	Decrease in query complexity for quantum computers with superposition of circuits <i>M. Araujo</i>
14:45	526	Optimal state reconstruction for cavity-optomechanical systems via Kalman filtering <i>Ralf Riedinger</i>
15:00	527	Quantum Entanglement of High Angular Momenta <i>Robert Fickler</i>
15:15	528	Cooling-by-measurement and mechanical state tomography via pulsed optomechanics <i>Ralf Riedinger</i>
15:30		Coffee Break

Time	ID	ATOMIC PHYSICS AND QUANTUM OPTICS IV Chair: NN
16:00	531	Einstein-Podolsky-Rosen correlations from colliding Bose-Einstein condensates <i>M. Ebner</i>
16:15	532	Real-Time Imaging of Quantum Entanglement <i>Robert Fickler</i>
16:30	533	Creation of nitrogen-vacancy centres for cavity QED <i>Kathrin Buczak</i>
16:45	534	Studies of Quantum Entanglement in 100 Dimensions <i>Mario Krenn</i>
17:00	535	Entanglement spectra in one dimension <i>Lars Bonnes</i>
17:15		END
18:30		Postersession and Apéro
20:00		Conference Dinner

ID	ATOMIC PHYSICS AND QUANTUM OPTICS POSTER
541	Coupling Spins and Diamond Color Centers to Superconducting Cavities <i>Stefan Putz</i>
542	Dipole-dipole influenced Ramsey interferometry <i>Laurin Ostermann</i>
543	Ultracold atoms on a superconducting Atomchip <i>Stefan Minniberger</i>
544	Single atom cavity quantum electrodynamics with non-transversally polarized light fields <i>Michael Scheucher</i>
545	Coherence properties of cold cesium atomic spins in a nanofiber-based dipole trap <i>Rudolf Mitsch</i>
546	see talk 516
547	Photonic platform for experiments in higher dimensional quantum systems <i>Christoph Schaeff</i>
548	Loophole-free Einstein Podolsky Rosen Experiment via Quantum Steering <i>Bernhard Wittmann</i>
549	Quantum communication with satellites, its preparatory terrestrial free-space demonstrations and future missions <i>Thomas Scheidl</i>
550	Laser desorption/vaporization/ionization techniques for matter-wave interferometry <i>Ugur Sezer</i>

### Infrared Optical Nanostructures

Wednesday, 04.09.2013, HS 3

Time	ID	I. QUANTUM CASCADE LASERS Chair: Karl Unterrainer, TU Wien
13:30	601	Quantum cascade laser frequency combs: spectroscopy and novel developments <i>Jerome Faist (i)</i>
14:00	602	Bi-functional Quantum Cascade Laser/Detectors for Integrated Photonics <i>Gottfried Strasser (i)</i>

14:30	603	Broadband external cavity tuning of a quantum cascade laser in the 3 - 4 $\mu\text{m}$ window <i>Sabine Riedi</i>
14:45	604	Terahertz spectroscopy of coupled cavity quantum cascade lasers <i>Dominic Bachmann</i>
15:00	605	Terahertz Photonic Crystal Quantum Cascade Laser Coupled to a Second Order Bragg Vertical Extractor <i>Christopher Bonzon</i>
15:15	606	From photonic crystal to micropillar terahertz quantum cascade lasers and recent progress towards nanowire-based devices <i>Michael Krall</i>
15:30		Coffee Break
		II. NANOCRYSTALS Chair: Gunther Springholz, JKU Linz
16:00	611	Ultra strained Si and Ge for device applications <i>Hans Sigg (i)</i>
16:30	612	Nanowires for solar cell applications <i>Knut Deppert (i)</i>
17:00	613	On polytypism in III-V nanowires <i>Friedhelm Bechstedt (i)</i>
17:30	614	PbS nanocrystal photodetectors with inorganic ligands <i>Wolfgang Heiss (i)</i>
18:00	615	X-ray analysis of nanowires <i>Julian Stangl</i>
18:15	616	Towards group IV direct gap semiconductors <i>Martin Glaser</i>
18:30		Postersession and Apéro
20:00		Public Lecture

Thursday, 05.09.2013, HS 3

Time	ID	III. QUANTUM NANOSTRUCTURES Chair: Jérôme Faist, ETH Zürich
13:30	621	Superconducting Split Ring Resonators for Ultrastrong Coupling <i>Curdin Maissen</i>
13:45	622	Terahertz-induced nonlinear intersubband dynamics. <i>Daniel Dietze</i>
14:00	623	Symmetric farfield, short-wavelength ( $\lambda = 4.53 \mu\text{m}$ ) MOPA quantum cascade lasers with Watt-level optical output power <i>Borislav Hinkov</i>
14:15	624	Optically pumped QD VECSEL for the Mid-Infrared <i>Amir Khier</i>
14:30	625	Intersublevel transition study of InAs/AlInAs quantum dashes by absorption, electroluminescence and magneto-tunneling spectroscopy <i>Gian Lorenzo Paravicini Bagliani</i>
14:45	626	Erasing the exciton fine structure splitting in semiconductor quantum dots <i>Rinaldo Trotta</i>
15:00	627	Grating-design based polarization modifications of ring cavity quantum cascade lasers <i>Rolf Szedlak</i>
15:15	628	Active control of THz-waves by coupling large-area CVD-graphene to a THz-Metamaterial <i>Federico Valmorra</i>
15:30		Coffee Break; END
18:30		Postersession and Apéro
20:00		Conference Dinner

ID	INFRARED OPTICAL NANOSTRUCTURES POSTER
631	Enhancement of light extraction from aligned SiGe-based photonic crystal slabs <i>Magdalena Schatzl</i>
632	Optically driven current turnstile based on self-assembled semiconductor quantum dots <i>Giancarlo Cerulo</i>
633	PbS quantum dots - silicon on insulator hybrid photonics <i>Markus Humer</i>
634	Electronic and optical properties of strained and unstrained group-IV semiconductor Germanium alloys <i>Kerstin Hummer</i>
635	Enhanced photoluminescence efficiency of SiGe islands integrated into large area photonic crystals <i>Elisabeth Lausecker</i>
636	Tuning the emission properties of single semiconductor quantum dots via electro-elastic fields <i>Johannes Wildmann</i>
637	High power terahertz quantum cascade laser for 63 $\mu\text{m}$ <i>Dana Turcinkova</i>
638	Quaternary Barrier InGaAs/AlInGaAs Terahertz Quantum Cascade Laser <i>Keita Ohtani</i>
639	Distributed-Feedback Quantum Cascade Laser at 3.2 $\mu\text{m}$ <i>Johanna Wolf</i>
640	Tuning of resonances in photonic crystal photodetectors <i>Andreas Harrer</i>
641	Frequency noise in mid-infrared quantum cascade lasers <i>Lionel Tombez</i>
642	Observation of THz Photo-luminescence from Multilayer SiC Epitaxial Graphene Pumped by a Mid-infrared Quantum Cascade Laser <i>Peter Qiang Liu</i>

## Biophysics and Medical Physics

Thursday, 05.09.2013, K153C

Time	ID	I. SOFT MATTER (SHARED WITH THE CONDENSED MATTER SESSION) Go to HS 5 Chair: Georg Pabst, Uni Graz
13:30	121	Equilibrium and flow of cluster-forming complex fluids <i>Christos N. Likos (i)</i>
14:00	122	Optimized Fourier Monte Carlo Simulation of Solid and Hexatic Membranes <i>Andreas Troester</i>
14:15	123	Biomimetic folding particle chains <i>Peter Oostrum</i>
14:30		Go BACK TO K153C
		II. BIOPHYSICS Chair: Georg Pabst, Uni Graz
14:30	701	Fluorescence and atomic force microscopy to visualize the interaction of HDL particles with lipid membranes <i>Gerhard J. Schütz (i)</i>
15:00	702	Characterization of Curli A Production on Living Bacterial Surfaces by Scanning Probe Microscopy <i>Yoojin Oh</i>

15:15	703	Innovating nanosensing technique to detect living bacteria and reveal resistance to antibiotics <i>Justin Notz</i>
15:30		Coffee Break
Time	ID	III. BIOPHYSICS / MEDICAL PHYSICS Chair: Giovanni Dietler, EPF Lausanne Georg Pabst, Uni Graz
16:00	711	Cell mechanics measured with Atomic force microscopy <i>Jose Luis Toca-Herrera</i>
16:15	712	<del>Measuring the stability of lipid membrane domains with nanometer resolution.</del> <i>Georg Fantner</i> Canceled
16:30	713	Protein partitioning in liquid-ordered (Lo) / liquid-disordered (Ld) domains <i>Benjamin Kollmitzer</i>
16:45	714	Filter gate closure inhibits ion but not water transport through potassium channels <i>Peter Pohl</i>
17:00	715	<del>Core-shell nanoparticles and their assembly</del> <i>Erik Reinhardt</i> Canceled
17:15	716	Characterization of augmented bone structures with $\mu$ -computed tomography and Raman spectroscopy <i>Johann Charwat-Pessler</i>
17:30	717	Raman spectroscopic investigation of urinary calculi and salivary stones <i>Matthias Eder</i>
17:45	718	Saving Joint with Aerosolphysics <i>Karoline Mühlbacher</i>
18:00	719	Probing metabolism <i>in vivo</i> in real time via hyperpolarized NMR <i>Arnaud Comment (i)</i>
18:30		END; Postersession and Apéro
20:00		Conference Dinner

ID	BIOPHYSICS AND MEDICAL PHYSICS POSTER	
721	Photomodification and Nanopatterning of Polystyrene for Bioapplications <i>R. A. Barb</i>	
722	Fractal characterization of tissue with the new Pyramid Method <i>Michael Mayrhofer-Reinhartshuber</i>	
723	The open pore of SecYEG does not show physiologically relevant ion selectivity <i>Denis Knyazev</i>	
724	Advancing high resolution structural analysis of lipid membranes using a generic algorithm <i>Peter Heftberger</i>	
725	Studies on the Cherenkov effect for improved TOF-PET <i>Stefan Brunner</i>	
726	Progress in the Structure-based Simulation of Plant Light-Harvesting Complexes <i>Frank Müh</i>	
727	The density and distribution of sacrificial bonds in polymer chains determines the amount of dissipated energy <i>S. Soran Nabavi</i>	
728	STED-lithography nano-anchors with single protein capacity <i>Richard Wollhofen</i>	
729	These IgGs are made for walkin': Random antibody movement on bacterial and viral surfaces <i>Johannes Preiner</i>	
730	Chemically tagged DNA tetrahedra as linker for single molecule force spectroscopy <i>Michael Leitner</i>	

731	Long and short lipid molecules experience the same inter-leaflet drag in lipid bilayers <i>Andreas Horner</i>
732	Bachelor thesis: Hyper Spectral Imaging with Two-Photon Microscopy <i>Harald Razum</i>
733	Investigation of the pH stability of avidins and newly developed avidin mutants with atomic force microscopy based on single molecule sensors <i>Melanie Köhler</i>
734	Electrokinetic Trap <i>Metin Kayci</i>
735	Towards a Non-Perturbative Theory of Optical Spectra of Pigment Protein Complexes: Application to the Water Soluble Chlorophyll Protein. <i>Thanh-Chung Dinh</i>

## Astronomy and Astrophysics

Thursday, 05.09.2013, K269D

Time	ID	ASTRONOMY AND ASTROPHYSICS
11:00		<b>General Assembly ÖGAA</b>
12:30		<b>Lunch</b>
		<b>SELECTED ÖGAA TALKS</b> <i>Chair: NN</i>
13:30	801	Talk 1 <i>NN</i>
13:45	802	Talk 2 <i>NN</i>
14:00	803	Talk 3 <i>NN</i>
14:15	804	Talk 4 <i>NN</i>
		<b>HABITABLE WORLDS: FROM DETECTION TO CHARACTERIZATION</b> <i>Chair: Yann Alibert, Uni Bern; Manuel Güdel, Uni Wien</i>
14:30	811	Observing Exoplanet Atmospheres: Recent Results from ESO and National Facilities <i>Monika Lendl</i>
14:45	812	A massive stars' view on carbon-to-oxygen abundance ratios in exoplanet host stars <i>Norbert Przybilla</i>
15:00	813	Composition of extrasolar planets <i>Amaury Thiabaud</i>
15:15	814	The effect of metallicity in the envelope of protoplanets <i>Julia Venturini</i>
15:30		<b>Coffee Break</b>
16:00	815	Pathways to Habitability (Path): An Austrian National Research Network <i>Manuel Güdel</i>
16:15	816	Long term evolution of protoplanetary disks <i>Alexander Stökl</i>
16:30	817	Formation of Chondrules in radiative shock waves <i>Helmut Joham</i>
16:45	818	Formation of terrestrial planets in binary stellar systems <i>Zsolt Sándor</i>

17:00	819	A possible model of water delivery by collisions in early planetary systems <i>Thomas I. Maindl</i>
17:15	820	Dynamical atmospheres of earth-like protoplanets <i>Ernst Dorfi</i>
17:30	821	Constraining stellar wind properties in habitable zones <i>Colin Johnstone</i>
17:45	822	The analysis of young solar-like stars and their stellar winds observed with the EVLA to define mass loss rates <i>Bibiana Fichtinger</i>
18:00	823	Stellar magnetic fields and their potential influence on planetary surroundings <i>Theresa Lüftinger</i>
18:15	824	Photometry of different Minor Bodies and comparisons <i>Werner Zeilinger</i>
18:30		<b>END; Postersession and Apéro</b>
20:00		<b>Conference Dinner</b>

ID	ASTRONOMY AND ASTROPHYSICS POSTER
831	BRITE-Constellation and the chances for detecting exoplanets <i>Werner Weiss</i>
832	Simulations of Prebiotic Chemistry under Post-Impact Conditions on Titan <i>Johannes Leitner</i>
833	On the Internal Structure of Enceladus <i>Ruth-Sophie Taubner</i>
834	Kepler-62 e and Kepler-62 f: The Potential Internal Structure of these habitable worlds <i>Ruth-Sophie Taubner</i>
835	Theoretical models of planetary system formation <i>David Swoboda</i>

## History of Physics

Thursday, 05.09.2013, K012D

Time	ID	HISTORY OF PHYSICS
		<i>Chair: Heinz Krenn, Uni Graz</i>
13:30	901	Die Untersuchung planetarer und interplanetarer Magnetfelder: von den ersten Satellitenmissionen bis zur Landung auf Asteroiden und Kometen <i>Konrad Schwingenschuh (i)</i>
14:00	902	Die Novara-Weltumsegelung (1857-1859): Wendepunkt für Geophysik / Meteorologie / Ozeanographie in Österreich <i>Bruno Besser</i>
14:15	903	Eine frühe Anwendung radioaktiver Tracer <i>Heinrich Mitter</i>
14:30	904	G. E. Rosenthal, a follower of Deluc in northern Germany <i>Jean-François Loude</i>
14:45	905	Die steinernen Schattenlinien der Sonne: Die Sonnenuhren des Andreas Pleningner <i>Reinhard Folk</i>
15:00	906	The Inconsistencies of the Lorentz transformations first formulated by Woldemar Voigt in 1887 <i>Hartwig Thim</i>
15:15		<i>Discussion</i>
15:30		<b>Coffee Break</b>



Time	ID	Chair: Reinhard Folk, Uni Linz
16:00	911	Physics in magnetic fields from Faraday to Pierre Weiss and his contemporaries <i>Jean-François Loude (i)</i>
16:30	912	Zur Erfindung des Magnetinduktions-Zeigertelegraphen durch Charles Wheatstone <i>Franz Pichler</i>
16:45	913	The Effective Mass Concept <i>Gerhard Brunthaler</i>
17:00	914	Das Elektrotechnische Institut der Universität Innsbruck, 1907 – 1946. Ein 'vergessenes' Institut <i>Armin Denoth</i>
17:15	915	<del>Die Kommentare in Le Seurs und Jacquiers Ausgabe von Newtons Principia</del> <del>Harald Fro</del> <i>Cancelled</i>
17:30	916	Viktor von Lang und Ernst Lecher – die Säulen des I. Physikalischen Institutes <i>Franz Sachslehner</i>
17:45	917	Das wissenschaftliche Exil in Großbritannien <i>Wolfgang L. Reiter</i>
18:00	918	The *Squinting* in the Doppler-effect and the Hidden Ether-drifts <i>Karl Mochnik</i>
18:15		<b>END</b>
18:30		<b>Postersession and Apéro</b>
20:00		<b>Conference Dinner</b>

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