

SPG - Jahrestagung in Zürich, 21. - 22. Juni 2012

Réunion de la SSP à Zürich, 21 - 22 juin 2012

Programmübersicht - Résumé du programme

Das vollständige Programm wird allen Teilnehmern am Tagungssekretariat abgegeben sowie auf der SPG-Webseite publiziert.

Hinweise:

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

Le programme final complet sera distribué aux participants au stand du secrétariat de la conférence et sera publié sur le site de la SSP.

Indications:

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

Plenary Session

Thursday, 21.06.2012, HPH G 1

Time	ID	PLENARY SESSION I Chair: Christophe Rossel, IBM Rüschlikon
08:55		Welcome note of the SPS President
09:00	1	From the QHE to Topological Insulators and on to Cosmic Magnetic Fields - a Unified Perspective Jürg Fröhlich, ETH Zürich (p)
09:40	2	Quantum physics in one dimension Thierry Giamarchi, Uni Genève (p)
10:20		Coffee Break
		Chair: Gervais Chapuis, EPFL
10:50	3	From Laue's discovery and the Braggs' key to the world of atoms to service crystallography Dieter Schwarzenbach, EPFL (p)
11:30		Award Ceremony
11:50		SPS General Assembly
12:30		Lunch
13:30		Topical Sessions
18:30		Postersession and Apéro
20:15		Grillparty

Thursday, 21.06.2012, HPH G 1

Time	ID	PUBLIC LECTURE Chair: Martin Pohl, Uni Genève
19:00	11	Space-borne Cosmic Ray Detectors Samuel C. C. Ting, CERN & MIT (p)
20:15		END

Friday, 22.06.2012, HPH G 1

Time	ID	PLENARY SESSION II Chair: Andreas Schopper, CERN
09:00	4	Nanomechanical Resonators - coherent control of nanomechanical motion Jörg Peter Kotthaus, LMU München (p)
09:40	5	Charge, Spin And Structural Dynamics of molecular systems: ultrafast optical and X-ray studies Majed Chergui, EPFL (p)
10:20		Coffee Break
11:00		Topical Sessions
12:00		Postersession (continued), Lunchbuffet
13:30		Topical Sessions

Friday, 22.06.2012, HPH G 2

Time	ID	PUBLIC TUTORIAL OF NCCR MUST AND ETH FAST Chair: Ursula Keller, ETH Zürich
12:15	12	Ultrafast Biology Gebhard F. X. Schertler, ETH Zürich & PSI Villigen (p)
13:00		END

Special: Careers for Physicists

This session is organised in conjunction with the Physikalische Gesellschaft Zürich (PGZ).

Thursday, 21.06.2012, HPH G 2

Time	ID	CAREERS FOR PHYSICISTS Chair: Kai Hencken, ABB Baden
13:30	31	Sensirion: High-Tech Sensors from the Zürichsee Marc von Waldkirch (i)
14:00	32	Physicists in research administration Florian Weissbach (i)
14:30	33	Theoretical Physics in Industrial Corporate Research Thomas Christen (i)
15:00	34	Mesa Imaging: Seeing the world in three dimensions Thierry Oggier (i)
15:30		END, Coffee Break
18:30		Postersession and Apéro

Special: Teacher's Afternoon: "Nanophysik am Gymnasium"

Friday, 22.06.2012, HCI D 2

Time	ID	"NANOPHYSIK AM GYMNASIUM" Chair: Tibor Gyalog, Uni Basel
14:30	41	Nano 4 schools - Erfahrungsbericht über 9 Jahre Nano für Schulen Martin Vonlanthen (i)
14:50	42	Der Nanotruck in Deutschland - Eine Erfolgsstory Andreas Jungbluth (i) cancelled
15:10	43	Swiss nano Cube - Plattform für Wissen & Bildung zu Nanotechnologien Robert Rekece (i)
15:30		Coffee Break

Time	ID	Chair: Tibor Gyalog, Uni Basel
16:00	44	Graetzelzellen für die Schule Thilo Glatzel (i)
16:20	45	Nanomedizin – Eine Debatte über Technologiefolgen Meret Hornstein (i)
16:40	46	Nano-Experimentier-Systeme für die Schule Andreas Vaterlaus (i)
17:00	47	War Benjamin Franklin der erste Nanophysiker? Danilo Pescia
17:20		END

Special:**A. 100 Years of Diffraction: Historical highlights and a look into the next 100 years**

This session is organised by the Swiss Society for Crystallography (SGK).
Part I is jointly organised with the SPS History of Physics section.

Thursday, 21.06.2012, HCI J 6

Time	ID	I. 100 YEARS OF DIFFRACTION Chair: Jan Lacki, Uni Genève Anthony Linden, Uni Zürich
11:50		SGK General Assembly
12:30		Lunch
13:30	51	The two Braggs A. Michael Glazer (i)
14:00	52	Max von Laue: the physicist and the upright man Jost Lemmerich (i)
14:30	53	The origins and development of macromolecular crystallography Larry Falvello (i)
15:00	54	Johannes Martin Bijvoet (1892-1980) and absolute structure Ton Spek (i)
15:30		Coffee Break
		II. THE NEXT 100 YEARS Chair: Michael Wörle, ETH Zürich
16:00	61	Novel structural studies with an X-ray Free Electron Laser Bruce Patterson (i)
16:25	62	Investigating disorder as a matter of routine - the next steps Thomas Weber (i)
16:50	63	The Materials Science Beamline upgrade Philip Willmott (i)
17:15	64	High Resolution X-Ray Diffraction applications for microsystems Antonia Neels
17:30	65	Powder Charge Flipping – input parameter optimization and solution evaluation Dubravka Šišak
17:45	66	Intercluster compounds for nanosized materials Fabienne Gschwind
18:00	67	News from the spallation neutron source SINQ: Diffraction Jürg Schefer
18:15	68	Density functional calculations of polysynthetic Brazil twinning in alpha-quartz Hans Grimmer
18:30		Poster prize and closing remarks
18:35		END, Postersession and Apéro
20:15		Grillparty

ID	100 YEARS OF DIFFRACTION POSTER	
71	A moment in time: 100 years of X-Ray diffraction versus 100 days of PHOTON 100 CMOS detector Eric Hovestreydt	
72	Ab-initio crystal structure prediction. Metal borohydrides Riccarda Caputo	
73	Pressure modulated proton-phonon coupling and its relevance to ceramic fuel cell proton conductors Qianli Chen	
74	Mixed-metal precursors for mixed-metal oxides Claire-Lise Chanez	
75	New penta-coordinate iron(III) aryloxide as initiators for ring-opening polymerization Yvens Chérémont	
76	Light-induced low-spin structure of the bistable [Fe(bbtr) ₃](BF ₄) ₂ compound Laure Guenee	
77	Magnetic ground state and 2D behavior in the pseudo-Kagomè layered system Cu ₃ Bi(SeO ₃) ₂ O ₂ Br Oksana Zaharko	
78	XRD investigations on PZT layers for actuator systems Olha Sereda	
79	Novel trimetallic borohydrides Pascal Schouwink	
80	TIPSI hybrid spectrometer at the European Spallation Neutron Source ESS: Probing multiple length scales in one instrument Nadir Aliouane	
81	Neutron diffraction and Oxygen Isotope Back Exchange studies in La _{2-x} Sr _x CuO _{4±δ} (x = 0, 0.05, 0.15) crystals as a function of temperature Ravi Sura	
82	Our fascination with crystals and crystallography – a 7500 year timeline Rangana Warshamanage	

B. History of Physics

Thursday, 21.06.2012, HCI D 2

Time	ID	HISTORY OF PHYSICS Chair: Bernhard Braunecker
14:30	91	The method of Victor F. Hess, or how the residual leaking away of electric charge, a tenacious 'shelf warmer', opened up new fascinating fields of physical knowledge Peter Schuster (i) <i>cancelled</i>
15:00	92	From thunderstorms to cosmic rays: Albert Gockel's investigations in atmospheric physics Jan Lacki
15:30		Coffee Break
		Chair: <i>Bernhard Braunecker</i>
16:00	93	The origins and fate of technical physics in Lausanne: the creation of the Ecole Spéciale. Régis Catinaud
16:30	94	Who discovered the Proca equation? Lanczos, Proca, de Broglie and the development of relativistic quantum theory in the 30' Adrien Vila-Valls

17:00	95	Density-functional-theory strategy to solve approximately a quantum many-body problem: main ideas over the last 50 years and their reflection in terminology <i>Tomasz Wesolowski</i>
17:30	96	Political Decisions with deep Scientific Consequences <i>Araceli Sanchez Varela</i>
18:00	97	A key to success for an instrument maker: Collaboration with a scientist. The case of Haag-Streit (established 1858) and Heinrich Wild (1833-1902). <i>Jean-François Loude</i>
18:30		END, Postersession and Apéro
20:15		Grillparty

1 Magnetism at Interfaces

Thursday, 21.06.2012, HCI J 7

Time	ID	MOLECULES AND CLUSTER <i>Chair: Armin Kleibert, PSI Villigen</i>
13:30	101	Magnetic exchange coupling at the metal-organic molecule/substrate interface: Insights from first-principles calculations <i>Peter Oppeneer (i)</i>
14:00	102	Investigating the interplay of geometry and magnetism in spin shuttle molecules on surfaces <i>Thomas Greber (i)</i>
14:30	103	Novel magnetochemical effects induced by axial ligands in on-surface planar molecular spin systems <i>Christian Wäckerlin</i>
14:45	104	Magnetism of Fe nanocluster superlattices on $\text{Al}_2\text{O}_3/\text{Ni}_3\text{Al}$ (111) <i>Luca Gragnaniello</i>
15:00	105	Towards spintronics with Erbium single-ion molecular magnets <i>Jan Dreiser</i>
15:15	106	High anisotropies for bimetallic Co-core Fe-shell islands on Au(11,12,12) <i>Sergio Vlaic</i>
15:30		Coffee Break
		MAGNETIC AND ULTRAFAST INTERFACES <i>Chair: Cinthia Piamonteze, PSI Villigen</i>
16:00	111	Superconductivity, magneto-transport and electronic structure of the interfacial $\text{LaAlO}_3/\text{SrTiO}_3$ electron gas <i>Jean-Marc Triscone (i)</i>
16:30	112	Interfacial magnetic couplings at LaSrMnO_3 interfaces <i>Carlos Vaz</i>
16:45	113	The Nature of Magnetic Ordering in Magnetically Doped Topological Insulator $\text{Bi}_{2-x}\text{Fe}_x\text{Se}_3$ - From Bulk to Surface <i>Zaher Salman</i>
17:00	114	Strain-driven magnetization in epitaxial multiferroic composite heterostructures mapped with x-rays and neutrons <i>Rajesh Chopedekar</i>
17:15	115	Altering STO/vacuum interface electronic states depositing polar LAO epitaxial film: Angle Resolved Photoemission Spectroscopy study <i>Milan Radovic</i>

17:30	116	Search for spontaneous magnetism below the surface of (110)-oriented YBCO superconducting films using LE- μ SR <i>Hassan Saadaoui</i>
17:45	117	Ultrafast Enhancement of Ferromagnetism via Photoexcited Carriers in EuO <i>Masakazu Matsubara</i>
18:00	118	Coherent control of femtosecond magnetization dynamics by a strong THz pulse <i>Christoph Hauri</i>
18:15	119	Ultrafast magnetism seen by time and spin resolved photoemission at FLASH <i>Andreas Fognini</i>
18:30		Postersession and Apéro
20:15		Grillparty

Friday, 22.06.2012, HCI J 7

Time	ID	NANOWIRES AND NANOPARTICLES <i>Chair: Carlos Vaz, PSI Villigen</i>
11:00	121	Static and dynamic properties of Single-Chain Magnets with broad domain walls <i>Alessandro Vindigni</i>
11:15	122	Thermal fluctuations and domain walls in ultra-thin magnetic nanowires <i>Thomas Michaelis</i>
11:30	123	Searching for magnetic structural excitations at the nano-scale <i>Peter Derlet</i>
11:45	124	Domain Walls in Structured Ferromagnetic Nanowires <i>Vahe Tshitoyan</i>
12:00	125	Temperature-dependent magnetization of individual iron nanoparticles studied with X-ray Photoemission electron microscopy <i>Ana Balan</i>
12:15		END, Postersession (continued), Lunchbuffet

ID	MAGNETISM AT INTERFACES POSTER
131	Use of a Landau-Heisenberg Hamiltonian in modelling the FeRh System <i>Peter Derlet</i>
132	Magnetization dynamics of GdFeCo nanostructures revealed with PEEM <i>Souliman el Moussaoui</i>
133	Coupled vortex pairs in magnetic multilayer elements <i>Christoph Quitmann</i>
134	Ground state ordering of artificial spin ice <i>Alan Farhan</i>
135	Domain pattern breakup in mesoscopic structures studied with x-ray microscopy <i>Stephanie Stevenson</i>
136	Ultrafast laser induced spin reorientation in the Co/SmFeO ₃ heterostructure <i>Armin Kleibert</i>
137	Studying the interfacial magnetism of $\text{LaNiO}_3/\text{LaMnO}_3$ superlattices with x-ray magnetic circular dichroism <i>Cinthia Piamonteze</i>
138	Size-dependent magnetic properties of individual iron nanoparticles studied at room temperature <i>Ana Balan</i>
139	Luminescence-based scanning x-ray transmission microscopy <i>Carlos Vaz</i>

140	Enhancement of spin fluctuations of TbPc ₂ single molecule magnets in thin films <i>Andrea Hofmann</i>
141	Electric field control of magnetism in epitaxial Pd thin films <i>Jakoba Heidler</i>
142	Radiation-induced elemental magnetic changes in Fe-Cr alloys using XMCD technique <i>Andi Idhil</i>
143	Impurity Band Responsible for Ferromagnetism in Magnetic Semiconductor (Ga,Mn)As <i>Masaki Kobayashi</i>
144	Digging up Bulk Band Dispersion behind Passivation Layer <i>Masaki Kobayashi</i>
145	Three-Dimensional Fermi Surface of Iron-Pnictide Superconductor BKFA <i>Masaki Kobayashi</i>

2 Applied Physics
+
Atomic Physics and Quantum Optics

NOTE:
THE ATOMIC PHYSICS AND QUANTUM OPTICS SESSION
CONTAINS ONLY POSTER PRESENTATIONS.

Friday, 22.06.2012, HCI J 6

Time	ID	APPLIED PHYSICS I <i>Chair: Ivo Furno, CRPP-EPFL</i>
11:00	201	Vector Spherical Harmonics for active magnetic field compensation <i>Grzegorz Wyszynski</i>
11:15	202	Handling wide dynamic PMT signals with high precision in ground-based gamma-ray detectors <i>Arno Gadola</i>
11:30	203	A new internal field mapping device for the nEDM experiment <i>Dieter Ries</i>
11:45	204	High brilliance electron beam extraction from metallic microstructured photocathode <i>Ardana Fernando</i>
12:00		Postersession (continued), Lunchbuffet
		APPLIED PHYSICS II <i>Chair: NN</i>
13:30	211	Cocaine Detection in Saliva with Attenuated Total Reflection (ATR) Spectroscopy <i>Kerstin Hans</i>
13:45	212	Sensitive detection of cocaine in a liquid solvent with a quantum cascade laser <i>Michele Gianella</i>
14:00	213	Mid-infrared fiber-coupled photoacoustic sensor for the detection of glucose in biological samples <i>Jonas Kottmann</i>
14:15	214	Tracking of Murine Cardiac Stem Cells by Harmonic Nanoparticles <i>Thibaud Magouroux</i>
14:30	215	Analysis of Human Tone-Burst-Evoked Otoacoustic Emissions <i>Reinhart Frosch</i>
14:45	216	High power SESAM modelocked thin disk lasers: access to sub-100 fs pulses and first CEO beat frequency detection <i>Cinia Schriber</i>

15:00	217	Enhancing the Performance of Solid State Organic Solar Cells by Self-assembled Monolayer Technique <i>Ali Kemal Havare</i>
15:15	218	Wave Propagation in Elastic and Thermoelastic Materials <i>Mario Leindl</i>
15:30		Coffee Break
		APPLIED PHYSICS III <i>Chair: NN</i>
16:00	221	Highly efficient Cu(In,Ga)Se ₂ solar cells grown on flexible polymer films <i>Adrian Chirilă (i)</i>
16:30	222	Dynamic nuclear polarization at moderate magnetic fields and temperature using photo-excited triplet states of aromatic molecules <i>Tim Rolf Eichhorn</i>
16:45	223	Dynamical study of electron pump based on self-assembled quantum dots <i>Giancarlo Cerulo</i>
17:00	224	DAST/SiO ₂ multilayer structure for efficient generation of 6 THz single-cycle pulses via cascaded optical rectification <i>Andrey Stepanov</i>
17:15	225	Laser induced magnetization reversal in GdFeCo nanostructures <i>Michele Buzzi</i>
17:30	226	Electrochemical deposition of photoconductive silicon based films using organic solvents <i>Agata Krywko-Cendrowska</i>
17:45		END

ID	APPLIED PHYSICS POSTER
241	Optical position feedback and closed loop control for electrostatically driven MOEMS mirrors <i>Andreas Tortschanoff</i>
242	Structural and piezoelectric investigation of BaTiO ₃ thin films on Si <i>Marilyne Sousa</i>
243	Strain effects on the properties of III-V MOSFETs <i>Pirmin Weigele</i>
244	Physical properties of ZnSe/SnO ₂ /glass films: Annealing (Ar atmosphere) temperature effects <i>Hulya Metin</i>
245	Structural and Electrical properties of Inkjet Printed CdS Thin Films <i>Hulya Metin</i>
246	Characterization of Inkjet Printed CdTe Thin Film <i>Hulya Metin</i>
247	Electrical Properties and Crystallographic Properties of Ternary Ho ₂ O ₃ and Eu ₂ O ₃ Doped Bi ₂ O ₃ Polymorphs <i>Hulya Metin</i>
248	Electrical Properties And Crystallographic Characterisation of (Bi ₂ O ₃) _{1-x-y} (Ho ₂ O ₃) _x and (Tm ₂ O ₃) _y System <i>Hulya Metin</i>
249	Surface morphology and Thermoluminescence of CBD grown ZnSe Films <i>Selma Erat</i>
250	Scattered light fluorescence microscopy in three dimensions <i>Giulia Ghielmetti</i>
251	Sensitivity of RADFETs with various gate oxide thicknesses <i>Goran Ristic</i>

ID	ATOMIC PHYSICS AND QUANTUM OPTICS POSTER
281	Spectral properties of mid-infrared quantum cascade lasers <i>Lionel Tombez</i>
282	Simple approximate relation between laser frequency noise and linewidth: experimental validation <i>Nikola Bucalovic</i>
283	External cavity tuning of broadband QCLs at 3.3 μm and 8 μm <i>Sabine Riedi</i>
284	Ground state Hanle effect based on atomic alignment: theory and experiment. <i>Evelina Breschi</i>
285	Study of phase gradients in the Swiss continuous atomic fountain frequency standard <i>Laurent Devenoges</i>
286	Femtosecond gigahertz diode-pumped solid-state laser for frequency comb generation <i>Alexander Klenner</i>
287	Ultrafast optically pumped VECSELS and MIXSELS <i>Mario Mangold</i>
288	Mid-IR Broadband Quantum Cascade Laser Frequency-Comb <i>Andreas Hugi</i>
289	Single-cycle high-power THz pulses above 1 MV/cm <i>Carlo Vicario</i>

3 Nuclear, Particle- and Astrophysics

Thursday, 21.06.2012, HCI J 3

Time	ID	TASK I: NEUTRINOS, ASTROPARTICLE PHYSICS Chair: Martin Pohl, Uni Genève
13:30	301	Sterile neutrinos: dark matter, baryogenesis, magnetic fields and more... <i>Oleg Ruchayskiy</i>
13:45	302	Dark Matter search with the XENON100 experiment <i>Marc Schumann</i>
14:00	303	The Argon Dark Matter Experiment <i>Ursina Degunda</i>
14:15	304	Measurements of the low-energy response of liquid xenon <i>Aaron Manalaysay</i>
14:30	305	Towards a large underground liquid argon observatory for neutrino physics and proton decay <i>Alessandro Curioni</i>
14:45	306	Calibration of the AMS-02 Silicon Tracker <i>Pierre Saouter</i>
15:00	307	POLAR: a Gamma-Ray Burst Polarimeter in Space <i>Silvio Orsi</i>
15:15	308	The FACT telescope - overview and status <i>Patrick Vogler</i>
15:30		Coffee Break
		TASK II: PSI PHYSICS I AND LHC PHYSICS I Chair: Klaus Kirch, ETH Zürich
16:00	311	New and final results of the MuCap experiment <i>Claude Petitjean</i>
16:30	312	Measurement of the Positive Pion Lifetime, τ_{π^+} , with the FAST Detector at the Paul Scherrer Institute <i>Gaetano Barone</i>
16:45	313	Muonium emission into vacuum from mesoporous thin films at cryogenic temperatures <i>Kim Siang Khaw</i>

17:00	314	Radiation hard studies of diamond strip trackers <i>Felix Bachmair</i>
17:15	315	Search for the Higgs boson in the diphoton decay channel at CMS <i>Marco Peruzzi</i>
17:30	316	Measurements of the electron and muon inclusive cross-sections in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector <i>Maria Clemencia Mora Herrera</i>
17:45	317	HammerCloud: distributed computing monitoring for ATLAS and LHC experiments <i>Gianfranco Sciacca</i>
18:00	318	Search for supersymmetry in hadronic final states with MT2 with the CMS detector <i>Hannsjörg Weber</i>
18:15	319	Angular correlation between B-hadrons produced in association with a Z boson at the CMS experiment <i>Carlotta Favaro</i>
18:30		Postersession and Apéro
20:15		Grillparty

Friday, 22.06.2012, HCI J 3

Time	ID	TASK III: LHC PHYSICS II Chair: Teresa Montaruli, Uni Genève
11:00	321	Search for the Standard Model Higgs Boson decaying to Bottom Quarks <i>Pierluigi Bortignon</i>
11:15	322	New Optical receiver modules for the insertable B-Layer at the ATLAS project. <i>Basil Schneider</i>
11:30	323	Improvements in the search for a Higgs boson decaying into bottom quarks <i>Philipp Eller</i>
11:45	324	B-baryon studies at the CMS Experiment <i>Mirena Ivova</i>
12:00		Postersession (continued), Lunchbuffet
		TASK IV: LHC PHYSICS III Chair: Antonio Ereditato, Uni Bern
13:30	331	Search for Supersymmetry in Events with a Z Boson, Jets and Missing Energy <i>Marco - Andrea Buchmann</i>
13:45	332	Searches for the 4 th Generation top-like Quark <i>Snezana Nektarijevic</i>
14:00	333	Top analysis from the bottom: Jet performance issues in top quark measurements by the ATLAS experiment at the LHC. <i>Caterina Doglioni</i>
14:15	334	Jet angular resolution <i>Francesco Guescini</i>
14:30	335	Measurement of the Zero-Crossing Point of the forward - backward Asymmetry of $B^0 \rightarrow K^{*0} \mu^+ \mu^-$ <i>Marco Tresch</i>
14:45	336	Measurement of lifetime difference $\Delta\Gamma_s$ in the decay $B_s^0 \rightarrow (J/\psi)\phi \rightarrow (\mu^+ \mu^-) K^+ K^-$ <i>Barbara Millan Mejias</i>
15:00	337	A data driven QCD-multijet background estimate for top physics with the ATLAS detector <i>Kilian Rosbach</i>
15:15	338	New searches for magnetic monopoles <i>Philippe Mermoud</i>
15:30		Coffee Break

Time	ID	TASK V: LHC PHYSICS IV AND PSI PHYSICS II <i>Chair: Giuseppe Iacobucci, Uni Genève</i>
16:00	341	Search for a neutron electric dipole moment at PSI <i>Jochen Krempel</i>
16:15	342	Systematic effects in the nEDM experiment at PSI <i>Johannes Zenner</i>
16:30	343	Improvements of the Hg cohabiting magnetometer for the nEDM experiment at PSI <i>Martin Fertl</i>
16:45	344	Results of the active compensation of the magnetic field surrounding the nEDM apparatus at PSI <i>Beatrice Franke</i>
17:00	345	Simultaneous Heavy Flavor and Top (SHyFT) Cross Section Measurement <i>Lukas Bäni</i>
17:15	346	Performance validation of the CMS digital readout chip with x-rays for the Phase I Pixel Upgrade <i>Marco Rossini</i>
17:30	347	Search for the Rare Decays $B_s^0 \rightarrow \mu^+ \mu^-$ and $B^0 \rightarrow \mu^+ \mu^-$ at LHCb <i>Christian Elsasser</i>
17:45	348	Search for (Higgs-like) bosons decaying into long-lived exotic particles <i>Julien Rouvinet</i>
18:00	349	Tagged time-dependent angular analysis of $B_s^0 \rightarrow J/\psi \phi$ decays at LHCb <i>Frédéric Dupertuis</i>
18:15	350	b-baryon results at LHCb <i>Raphael Märki</i>
18:30		END

ID	NUCLEAR, PARTICLE- AND ASTROPHYSICS POSTER
361	LOFT – the Large Observatory for X-ray Timing <i>Enrico Bozzo cancelled</i>
362	The search for neutrinoless double beta decay with the GERDA experiment <i>Giovanni Benato</i>
363	Search for Physics Beyond the Standard Model in Events with equally charged Leptons <i>Marc Dünser</i>
364	Qualification procedures of the CMS digital readout chip for the Pixel Upgrade Phase I <i>Philipp Eller cancelled</i>
365	Longitudinal spatial compression of a slow muon beam <i>Yu Bao</i>
366	Optical cesium magnetometers for the PSI neutron electric dipole moment experiment <i>Malgorzata Kasprzak</i>
367	Search for Supersymmetry in multilepton final states <i>Tobias Kruker cancelled</i>
368	Measurement of Pion and Kaon production cross sections with NA61/SHINE for T2K <i>Silvestro di Luise</i>
369	Parametric r-process studies in supernova shocks <i>Marius Eichler</i>
370	Die Grundzüge der Weltpotentialtheorie <i>Peter Wolff</i>
371	Das Lehrplakat zur Weltpotentialtheorie (WPT) <i>Peter Wolff</i>
372	Towards extraction of a slow μ^+ beam from a helium target into vacuum <i>Katarina Kwuida-Manthey</i>

373	Search for a light Higgs boson in the 2l+2tau final state with the CMS experiment <i>Mauro Verzetti</i>
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4 Theoretical Physics

Thursday, 21.06.2012, HCI J 4

Time	ID	THEORETICAL PHYSICS I <i>Chair: G. M. Graf, ETH Zürich</i>
13:30	401	Electron waiting time distributions in electrical conductors <i>Markus Büttiker (i)</i>
14:00	402	Gravitational wave detection from space <i>Philippe Jetzer (i)</i>
14:30		
15:30		Coffee Break
THEORETICAL PHYSICS II <i>Chair: G. M. Graf, ETH Zürich</i>		
16:00	403	A new algorithm to compute one-loop scattering amplitudes <i>Fabio Cascioli</i>
16:15	404	Application of the Symbol Formalism to the Computation of Scattering Amplitudes in Quantum Field Theory <i>Erich Weihs</i>
16:30	405	Polycrystalline Shape Memory Alloys: Constitutive Modelling by the BSM (Block-Spin-Method) <i>Eduard Oberaigner</i>
16:45	406	One-dimensional fermionic systems beyond Luttinger liquid theory <i>Thomas Schmidt</i>
17:00	407	Stability of topological quantum computing schemes to bit-flip and measurement errors <i>Ruben S. Andrist</i>
17:15	408	Euclid and the quest for the Dark Energy <i>Martin Kunz</i>
17:30		
18:30		Postersession and Apéro
20:15		Grillparty

Friday, 22.06.2012, HCI J 4

Time	ID	THEORETICAL PHYSICS III <i>Chair: G. M. Graf, ETH Zürich</i>
11:00	411	The quantum marginal problem <i>Matthias Christandl (i)</i>
11:30	412	What can we learn from the cosmological matter distribution? <i>Ruth Durrer (i)</i>
12:00		Postersession (continued), Lunchbuffet
THEORETICAL PHYSICS IV <i>Chair: G. M. Graf, ETH Zürich</i>		
13:30	413	Cavity optomechanics in the single-photon strong-coupling regime <i>Andreas Nunnenkamp (i)</i>
14:00	414	Controlling electronic interactions by light <i>Philipp Werner (i)</i>

14:30	415	Hybridization of wave functions in one-dimensional Anderson localization <i>Dmitri Ivanov (i)</i>
15:00		
15:30		Coffee Break
		THEORETICAL PHYSICS V <i>Chair: G. M. Graf, ETH Zürich</i>
16:00	416	Dynamics of the rotated Dicke model <i>Michael Tomka</i>
16:15	417	Bethe Ansatz and Ordinary Differential Equation Correspondence for Degenerate Gaudin Models <i>Omar El Araby</i>
16:30	418	Eigenvector statistics in a perturbed weakly-confined random matrix ensemble <i>Matous Ringel</i>
16:45	419	Symbolic Computation in Lagrangian Mechanics <i>Mario Leindl</i>
17:00		END

5 NCCR MaNEP

Thursday, 21.06.2012, HPH G 1

Time	ID	MaNEP I <i>Chair: Dirk van der Marel, Uni Genève</i>
13:30	501	Competition between charge order and superconductivity in $\text{YBa}_2\text{Cu}_3\text{O}_y$ <i>Marc-Henri Julien (i)</i>
14:00	502	Scanning Tunneling Spectroscopy on $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ revisited <i>Jens Bruér</i>
14:15	503	Magnetic-field tuned anisotropy in superconducting $\text{Rb}_x\text{Fe}_{2-y}\text{Se}_2$ <i>Saskia Bosma</i>
14:30	504	Universal scaling collapse of the dynamic relaxation rate in underdoped high T_c cuprates <i>Seyed Iman Mirzaei</i>
14:45	505	Structural and Magnetic Properties of the Parent Compound $\text{T}'\text{-La}_2\text{CuO}_4$ of Electron-Doped Cuprates <i>Gwendolyne Pascua</i>
15:00	506	Field effect experiments on cuprates and related materials <i>Guy Dubuis</i>
15:15	507	Prospects for improving the superconducting properties of MgB_2 and Nb_3Sn wires <i>Carmine Senatore</i>
15:30		Coffee Break
		MaNEP II <i>Chair: Christoph Renner, Uni Genève</i>
16:00	511	From surface to interface physics: High-energy photoemission spectroscopy of oxide heterostructures <i>Ralph Claessen (i)</i>
16:30	512	Theory of High-Temperature Multiferroicity in CuO <i>Naemi Leo</i>
16:45	513	Radio-frequency spectroscopy of a weakly attractive Fermi gas <i>Christophe Berthod</i>
17:00	514	Multiscaling analysis of ferroelectric domain wall roughness <i>Jill Guyonnet</i>

17:15	515	Fermi Surface Dependence of the Charge Transport and Thermoelectric Effect in Two-Dimensional Metals <i>Jonathan M. Buhmann</i>
17:30	516	Magnetotransport properties of $\text{LaAlO}_3/\text{SrTiO}_3$ interfaces <i>Alexandre Fête</i>
17:45	517	Exchange Bias in LaNiO_3 -based heterostructures <i>Pavlo Zubko</i>
18:00	518	Correlated transition metal oxides for thermoelectrics <i>Sascha Populoh</i>
18:15	519	Tunable conductivity threshold at polar oxide interfaces: implications for understanding its origin <i>Mathilde L. Reinle-Schmitt</i>
18:30		Postersession and Apéro
20:15		Grillparty

Friday, 22.06.2012, HPH G 1

Time	ID	MaNEP III <i>Chair: Alberto Morpurgo, Uni Genève</i>
11:00	521	Magnetoplasmons and Faraday rotation in graphene <i>A. B. Kuzmenko (i)</i>
11:30	522	Engineering Dirac points with ultracold fermions in a tunable optical lattice <i>Daniel Greif</i>
11:45	523	Transport through graphene on SrTiO_3 <i>Nuno Couto</i>
12:00		Postersession (continued), Lunchbuffet
		MaNEP IV <i>Chair: Frédéric Mila, EPFL</i>
13:30	531	Studying the physics of disordered bosons with disordered magnetic insulators <i>Tommaso Roscilde (i)</i>
14:00	532	Observation of a quantum critical point in the heavy fermion antiferromagnet CeRhSi_3 <i>Nikola Egetenmeyer</i>
14:15	533	Antiferromagnetic spin-S chains with exactly dimerized ground states <i>Frédéric Michaud</i>
14:30	534	Diagrammatic Monte Carlo for the Hubbard model <i>Jan Gukelberger</i>
14:45	535	Static and dynamic properties of a strong-leg spin ladder <i>David Schmidiger</i>
15:00	536	Zero field splitting in the two-dimensional quantum spin liquid PHCC <i>Maximilian Goldmann</i>
15:15	537	Controlled flux penetration in platelet superconductors <i>Roland Willa</i>
15:30		Coffee Break
		MaNEP V <i>Chair: Andrey Zheludev, ETH Zürich</i>
16:00	541	Spin-Orbital Separation in a Cuprate Spin Chain and Studies of Fe-based Superconductors with Resonant Inelastic X-ray Scattering <i>Thorsten Schmitt (i)</i>
16:30	542	Mapping of electron-hole excitations in a charge density wave system with Resonant Inelastic X-ray Scattering <i>Claude Monney</i>

16:45	543	Magnetism and orbital physics of the Mott insulator LuVO_3 <i>Markos Skoulatos</i>
17:00	544	Imprinting magnetic information in manganites with X-rays <i>Marios Garganourakis</i>
17:15		END

ID	MANEP POSTER	
5001	Soft x-ray photoemission measurements on $\text{LaAlO}_3/\text{SrTiO}_3$ and $(\text{LaAlO}_3)_x(\text{SrTiO}_3)_{1-x}/\text{SrTiO}_3$ heterostructures <i>Claudia Cancellieri</i>	
5002	Bond disorder in $\text{Cu}(\text{quinoxaline})\text{X}_2$, X = Cl, Br <i>Wolfram E. A. Lorenz</i>	
5003	Asymmetric Josephson effect at the interface of non-centrosymmetric superconductors <i>Ludwig Klam</i>	
5004	Electron-hole instability in TiSe_2 <i>Gael Monney</i>	
5005	μSR investigation of magnetism and magnetoelectric coupling in Cu_2OSeO_3 <i>Aleander Maisuradze</i>	
5006	Multiscaling analysis of intrinsic domain walls in epitaxial BiFeO_3 thin films <i>Benedikt Ziegler</i>	
5007	Phase diagram of epitaxial BiFeO_3 - LaFeO_3 Superlattices <i>Gijsbert Rispens</i>	
5008	Multiplet calculations and X-ray spectra simulations in low symmetry compounds. <i>Anne-Christine Uldry</i>	
5009	Field driven ordering in a frustrated spin ladder with bond randomness <i>Erik Wulf</i>	
5010	Thermoelectric effect in one-dimensional metallic systems - a model study on the impact of disorder and phonons <i>Daniel Müller</i>	
5011	Graphene on Ruthenium: Four hills <i>Irakli Kalichava</i>	
5012	Nanoscale PFM imaging of intrinsic domains in PbTiO_3 ultrathin films. <i>Céline Lichtensteiger</i>	
5013	Pressure dependence of optical excitations in tetragonal Sr_2VO_4 <i>Michael Tran</i>	
5014	Doping and temperature dependence of STS spectra in $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}_2\text{O}_{8+\delta}$ <i>Thomas B. Amundsen</i>	
5015	Scanning tunnelling microscopy/spectroscopy study of $\text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$ thin films <i>Zoran Ristic</i>	
5016	First direct observation of the Van Hove Singularity in the tunnelling spectra of cuprates <i>Alexandre Piriou</i>	
5017	Effect of bond disorder on weakly-coupled spin-1/2 antiferromagnetic Heisenberg chains <i>Matthias Thede</i>	
5018	CVD graphene: effects of the environment and annealing on its doping level and the charge carriers mobility <i>Christophe Caillier</i>	
5019	Nearest-neighbor spin correlations and doublon production rate by lattice modulation for spin-1/2 fermionic atoms <i>Akiyuki Tokuno</i>	
5020	New experimental setup for thermal conductivity measurements: stability against quench in industrial Nb_3Sn wires fabricated by various techniques <i>Marco Bonura</i>	

5021	Temperature and time scaling of the peak-effect vortex configuration in $\text{FeTe}_{0.7}\text{Se}_{0.3}$ <i>Marco Bonura</i>
5022	Physical properties of TiSe_2 crystals grown by vapour transport technique. <i>Alberto Ubal dini</i>
5023	Bulk insulating states in the $\text{Bi}_2(\text{Se}_{1-x}\text{Te}_x)_3$ solid solution. <i>Alberto Ubal dini</i>
5024	Optical properties of $\text{Bi}_2\text{Te}_2\text{Se}$ <i>Ana Akrap</i>
5025	Interactions between carbon nanotubes and epitaxial $\text{Pb}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_3$ thin films <i>Cédric Blaser</i>
5026	Humidity Sensing Properties of Different Bismuth Phosphate Types <i>Min Sheng</i>
5027	Optical Measurements of Neodymium and Samarium Nickelates <i>Julien Ruppen</i>
5028	Structural study of LaNiO_3 heterostructures at the metal-insulator transition <i>Steven J. Leake</i>
5029	Effect of phase separation and vacancy order on the superconducting and magnetic properties of $\text{Rb}_x\text{Fe}_{2-y}\text{Se}_2$ <i>Steven Weyeneth</i>
5030	The effect of nitrogen incorporation on the thermoelectric properties of EuTiO_3 and $\text{EuTi}_{0.98}\text{Nb}_{0.02}\text{O}_3$ <i>Leyre Sagarna</i>
5031	Semiclassical theory of the 1/2 magnetization plateau of the J_1 - J_2 model on the square lattice <i>Tommaso Coletta</i>
5032	Infrared Spectroscopy on Gated Tri-layer Graphene <i>Nicolas Ubrig</i>
5033	Hysteresis in the temperature dependent electronic structure of NdNiO_3 : A photoemission study <i>Zuzana Vydrova</i>
5034	Mixed crystals from the quantum magnets $\text{Ba}_3\text{Cr}_2\text{O}_8$ and $\text{Sr}_3\text{Cr}_2\text{O}_8$ <i>Henrik Grundmann</i>
5035	Influence of different synthesis methods on thermoelectric properties of $\text{Ti}_{0.33}\text{Zr}_{0.33}\text{Hf}_{0.33}\text{NiSn}$ half-Heusler compound with emphasis on thermal conductivity measurements <i>Krzysztof Galazka</i>
5036	Self-consistent structure of a domain wall in Sr_2RuO_4 <i>Adrien Bouhon</i>
5037	Realization of a thermal LC-circuit <i>Olaf Bossen</i>
5038	Competition between columnar and plaquette order in the fully frustrated transverse field Ising model on the square lattice. <i>Sandro Wenzel</i>
5039	Hybridization gap and anisotropic far-infrared optical conductivity of URu_2Si_2 <i>Julien Levallois</i>
5040	The influence of defects in the quasi-2D CDW compound 1T-TiSe_2 <i>Clément Didiot</i>
5041	A Thermoelectric Study on the Electron Gas at the $\text{LaAlO}_3/\text{SrTiO}_3$ Interface <i>Danfeng Li</i>
5042	Disorder in a quasi-two-dimensional quantum spin liquid <i>Dan Huvonen</i>
5043	Resonant inelastic x-ray scattering on a quasi-one-dimensional multiferroic cuprate: probing the local magnetic correlations <i>Claude Monney</i>

5044	Critical current of Nb ₃ Sn wires under quasi-hydrostatic radial pressure <i>Giorgio Mondonico</i>
5045	Phase diagram of the EuFe ₂ As ₂ system with respect to chemical and hydrostatic pressure <i>Zurab Guguchia</i>
5046	On Electronic Properties and Superconductivity of Strained High T _c Films <i>Nathaniel Wooding</i>
5047	Effects of bond disorder in the quantum spin ladder (C ₅ H ₁₂ N) ₂ CuBr _{4(1-x)} Cl _{4x} <i>Simon Ward</i>
5048	Nanoscale studies of electrical conduction in ferroelectric domain walls with insulator coated carbon nanotube tips <i>Yuliya Lisunova</i>
5049	Influence of the Internal Polarizability on the Charge Transport Properties in N-Type Organic Single Crystal Field-Effect Transistors <i>Nikolas Minder</i>
5050	Control of the magnetic volume fraction in Co-doped TiO ₂ films via oxygen vacancies <i>Hassan Saadaoui</i>
5051	Structural and electrical properties of BaTiO ₃ thin-film capacitors <i>Stephanie Fernandez-Pena</i>
5052	One-dimensional nanolines and single atom chains on Si(001) <i>François Bianco</i>
5053	Frustration and disorder in a 1D spin ladder at high magnetic fields <i>Toni Shiroka</i>
5054	Tuning superconductivity and magnetism in Fe _y Se _{1-x} Te _x <i>Markus Bendele</i>
5055	Superconductivity Driven Imbalance of the Magnetic Domain Population in CeCoIn₅ Simon Gerber <i>cancelled</i>
5056	Ultrafast X-Ray Nanowire Single-Photon Detectors and Their Energy-Dependent Response <i>Kevin Inderbitzin</i>
5057	Magnetic phase transitions in PbB _x B' _{1-x} O ₃ (B = Fe, and B' = Nb, Ta) <i>Shravani Chillal</i>
5058	Differences in Chiral Expression: Racemic and Enantiopure Heptahelicenes on Various Metal Surfaces <i>Johannes Seibel</i>
5059	The Luttinger liquid theory of molybdenum purple bronze <i>Piotr Chudzinski</i>
5060	Temperature-Dependence of Detection Efficiency in NbN and TaN SNSPD <i>Andreas Engel</i>
5061	Electronic Properties of Single-Crystal Organic Charge-Transfer Interfaces probed using Schottky-Gated Heterostructures <i>Ignacio Gutierrez Lezama</i>
5062	Crossover from Coulomb blockade to quantum-Hall effect in suspended graphene nanoribbon <i>DongKeun Ki</i>
5063	Doping dependence of the pseudogap phase in La-based cuprates <i>Christian Matt</i>
5064	Soft-X-Ray ARPES: From Three-Dimensional Materials to Heterostructures <i>Vladimir N. Strocov</i>
5065	Conduction at domain walls in insulating Pb(Zr _{0.2} Ti _{0.8})O ₃ <i>Iaroslav Gaponenko</i>

5066	Fluctuations of one-dimensional interface in the directed polymer formulation: role of a finite interface width <i>Elisabeth Agoritsas</i>
5067	Local study of the electronic and structural properties of colloidal semiconductor nanocrystals <i>Maria Longobardi</i>
5068	Pressure dependence of the penetration depth in CeCoIn ₅ studied by muon spin rotation <i>Ludovic Howald</i>
5069	Hexagonal InMnO ₃ - An Outsider Among The Family Of Multiferroic Hexagonal Manganites <i>Martin Lilienblum</i>

6 NCCR Nano

I. NANOMECHANICS

Thursday, 21.06.2012, HCI G 3

Time	ID	NANOMECHANICS Chair: Martino Poggio, Uni Basel
13:30	601	Coherent coupling of light and mechanical motion <i>Ewold Verhagen (i)</i>
14:00	602	Stable "ring-like" Ag clusters on Si(111)-(7x7): voltage dependency study of the scanning tunneling microscopy apparent topography <i>Nicolas Mariotti</i>
14:15	603	Detection of cantilever thermal motion and feedback cooling using a quantum point contact <i>Michele Montinaro</i>
14:30	604	Entering the nonlinear regime with mechanical resonators made from nanotubes and graphene <i>Alexander Eichler (i)</i>
15:00	605	The Lateral Resolution of the near-tip scanning electron microscopy. <i>Daniilo Pescia</i>
15:15	606	Prospects and challenges for atomic force microscopy in molecular structure recognition <i>Bruno Schuler</i>
15:30		Coffee Break
16:00	607	Non-contact friction measurements by means of Atomic Force Microscopy (AFM) operated in pendulum geometry <i>Marcin Kisiel (i)</i>
16:30	608	NanoXAS - Combining Scanning Probe and X-Ray Microscopy for Nanoanalytics <i>Nicolas Pilet</i>
16:45		END
18:30		Postersession and Apéro
20:15		Grillparty

II. NANOPHOTONICS & VARIA

Thursday, 21.06.2012, HCI G 7

Time	ID	NANOPHOTONICS I Chair: Olivier J. F. Martin, EPFL
13:30	621	Towards time-resolved 3D imaging and probing with Photonic Force Microspectroscopy <i>Sylvia Jeney (i)</i>
14:00	622	Study of the Optical Transport within Plasmonic Nano- and Sub Nano-metric Junctions <i>Banafsheh Abasahl</i>

14:15	623	Nanoscale Chemical Analysis by Tip-Enhanced Raman Spectroscopy: Recent Developments and Applications <i>Thomas Schmid (i)</i>
14:45	624	Gold Photoluminescence in Nanoscale Antennas <i>Toni Fröhlich</i>
15:00	625	3-Dimensional Computational Nano-Optics - With a Focus on Fabricated Structures <i>Benedikt Oswald (i)</i>
15:30		Coffee Break
		VARIOUS NANOTOPICS <i>Chair: Michel Calame, Uni Basel</i>
16:00	631	Imaging the charge distribution within a single molecule <i>Fabian Mohn (i)</i>
16:30	632	Chemical sensing with silicon nanowire field-effect transistors <i>Ralph Stoop</i>
16:45	633	Combining SFM & ToF-SIMS: a new route to access chemical information at the nanoscale <i>Laetitia Bernard</i>
17:00	634	Progress in electron beam generation for Near Field-Emission Scanning Electron Microscopy <i>Danilo Andrea Zanin</i>
17:15	635	New Developments in Near Field-Emission Scanning Electron Microscopy <i>Lorenzo G. De Pietro</i>
17:30	636	Electrostatic characterization of Near Field-Emission Scanning Electron Microscopy <i>Hugo Cabrera</i>
17:45	637	Resonances arising from hydrodynamic memory - The Color of Brownian motion <i>Matthias Grimm</i>
18:00	638	Graphane formation and patterning by pure hydrogen low temperature plasma exposure <i>Baran Eren</i>
18:15		
18:30		Postersession and Apéro

Friday, 22.06.2012, HCI G 7

Time	ID	NANOPHOTONICS II <i>Chair: Olivier J. F. Martin, EPFL</i>
13:30	641	Plasmonic Promises: Single Molecule Sensing, Electrochemistry, Nanowire Electronics, Strain Visualization, and Interferometry <i>Janos Vörös (i)</i>
14:00	642	Periodic nanogap arrays for surface enhanced spectroscopy: modeling and performance <i>Thomas Siegfried</i>
14:15	643	Targeting cells with gold nanoparticles <i>Sara Peeters (i)</i>
14:45	644	Electron emission from optically excited metallic nanotips <i>Anna Mustonen</i>
15:00	645	Charge Transport and Light Propagation Modeling in Organic Semiconductor Devices <i>Beat Ruhstaller (i)</i>
15:30		END, Coffee Break

III. NANOBIOPHYSICS

Friday, 22.06.2012, HCI J 7

Time	ID	NANOBIOPHYSICS <i>Chair: Georg E. Fantner, EPFL</i>
13:30	661	Nanophotonics and Nanoelectronics Tools for Single Molecule Biophysics <i>Aleksandra Radenovic (i)</i>
14:00	662	Investigating Skin Cancer with Nanomechanical Biosensors <i>François Huber</i>
14:15	663	Optimization of DNA hybridization efficiency by pH-driven nanomechanical bending <i>Jiayun Zhang</i>
14:30	664	Study of DNA relaxation on mica using AFM with further automatic tracing <i>Andrey Mikhaylov</i>
14:45	665	Direct Visualization of Lipid Membrane Dynamics Using High-Speed Atomic Force Microscopy (HS-AFM) <i>Jonathan D. Adams</i>
15:00	666	Microfabricated Membrane Surface Stress Sensors for Medical Breath Testing <i>Hans Peter Lang</i>
15:15		END
15:30		Coffee Break

ID	NANO POSTER	
671	Optomechanical Coupling of Ultracold Atoms and a Membrane Oscillator	<i>Maria Korppi</i>
672	Friction anisotropy investigations: Measurements on the anisotropic surface of an organic layer compound crystal	<i>Gregor Fessler</i>
673	Near Field-Emission Scanning Electron Microscopy	<i>Peter Thalmann</i>
674	Electron Beam Properties of Large Double Gate Field Emitter Arrays with an Optimized Collimation Gate Electrode Geometry	<i>Patrick Helfenstein</i>
675	Fabrication and characterization of tunable plasmonic nanostructures for biosensing	<i>Olivier Scholder</i>
676	Study of biomolecular interactions using photonic crystal surface waves (PC SW) optical sensor.	<i>Tatyana Karakouz</i>

7 NCCR MUST

Friday, 22.06.2012, HPH G 2

Time	ID	MUST I <i>Chair: Lukas Gallmann, ETH Zürich</i>
11:00	701	Probing electronic valence shell dynamics in molecules <i>Hans Jakob Wörner (i)</i>
11:30	702	Electron ionization times measured with the attoclock <i>Robert Boge</i>
11:45	703	Attosecond Time-Gated Absorption and Emission <i>Jens Herrmann</i>

12:00		Postersession (continued), Lunchbuffet Public Tutorial see p. 1
		MUST II <i>Chair: Thomas Feurer, Uni Bern</i>
13:30	711	Optimal Dynamic Discrimination of Free Amino Acids and Small Peptides <i>Jean-Pierre Wolf</i>
13:45	712	Dynamic probe concept for studying aggregation of organic dye molecules at liquid/liquid interfaces by femtosecond second harmonic generation technique <i>Marina Fedoseeva</i>
14:00	713	Breaking Down the Problem to Understand the Photophysics of Conjugated Polymers <i>Natalie Banerji</i>
14:15	714	Investigation of low frequency vibrations using dispersed femtosecond – DFWM <i>Gregor Knopp</i>
14:30	715	Multidimensional IR spectroscopy of water <i>Peter Hamm (i)</i>
15:00	716	Measuring nonadiabaticity of molecular quantum dynamics with quantum fidelity and with its efficient semiclassical approximation <i>Tomáš Zimmerman</i>
15:15	717	Perturbative Treatment of the Up-Conversion Detection of Pulse-shaped Entangled Photons and Applications <i>Christof Bernhard</i>
15:30		Coffee Break
		MUST III <i>Chair: Jürg Osterwalder, Uni Zürich</i>
16:00	721	High-harmonic generation from oriented OCS molecules <i>Peter Kraus</i>
16:15	722	A double-sided time-resolved VMI setup with high temporal resolution <i>Yuzhu Liu</i>
16:30	723	Femtosecond dynamics of atomic structure in solids <i>Steven L. Johnson (i)</i>
		<i>Chair: Paul Beaud, PSI Villigen</i>
17:00	724	Femtosecond Transient Diffuse Reflectance for Dye-Sensitized Solar Cells <i>Elham Ghadiri</i>
17:15	725	π-Conjugated Donor-Acceptor Systems as Metal-Free Sensitizers for Dye-Sensitized Solar Cell Applications <i>Mateusz Wielopolski</i>
17:30	726	Probing interfacial electron transfer dynamics in the attosecond time domain <i>Luca Castiglioni</i>
17:45	727	Atomic motion of a coherent phonon observed in a charge and orbitally ordered manganite <i>Andrin Caviezel</i>
18:00	728	Electron dynamics in a quasi-1-dimensional topological metal: Bi(114) <i>Matthias Hengsberger</i>
18:15	729	Laser induced coherent structural dynamics of the Heusler alloy Ni₂MnGa <i>Simon O Mariager</i>
18:30	730	Non-retarded pairing interaction in a high-T_c cuprate from coherent charge fluctuation spectroscopy <i>Fabrizio Carbone (i)</i>
19:00		END

ID	MUST POSTER
741	Direct High Harmonics Pulse Shaping in the XUV <i>Jean-Pierre Wolf</i>
742	High-Power Mid-infrared Femtosecond Laser Source Based On Parametric Transfer <i>C. Heese</i>
743	Stereochemistry of C4 dicarboxylic acids on Cu(110) <i>Chrysanthi Karageorgaki</i>
744	Beating the efficiency of both quantum and classical simulations with semiclassics <i>Cesare Mollica</i>
745	Confocal fs-CARS measurement of nano-particles in epidirection <i>Gregor Knopp</i>
746	Probing the longitudinal momentum spread of the electron wave packet at the exit point <i>Alexandra Landsman</i>
747	Accelerating the calculation of time-resolved electronic spectra with the cellular dephasing representation <i>Miroslav Šulc</i>
748	Towards femtosecond dynamics in multiferroics <i>Steven L. Johnson</i>
749	Photon echo measurements using a frequency doubled cavity dumped femtosecond oscillator <i>Vesna Markovic</i>
750	A Combined NIR Transient-Absorption Optical Pump-THz Probe Spectroscopy Study on Charge Carrier Generation Dynamics in Solid State Dye Sensitized Solar Cells <i>Jan Brauer</i>
751	Investigation of chemical surface treatment on the charge carrier dynamics in solid-state Dye-Sensitized Solar Cells <i>Arianna Marchioro</i>
752	Photoinduced Processes of Small Molecule Organic Photovoltaics <i>Jelissa De Jonghe</i>
753	Photoelectron Diffraction on SnPc/Ag(111) <i>Michael Greif</i>
754	Effects of the finite length of the pump laser pulse in nonadiabatic quantum dynamics simulations of ultrafast time-resolved spectroscopy <i>Aurélien Patoz</i>
755	Accelerating calculations of ultrafast time-resolved electronic spectra with various high order split-operator algorithms <i>Marius Wehrle</i>
756	High-harmonic spectroscopy of isoelectronic molecules: electronic structure and multielectron effects <i>Alisa Rupenyana-Vasileva</i>
757	Actively Stabilized Attosecond Interferometer <i>Martin Huppert</i>
758	Ultrafast time-resolved photoelectron spectroscopy of solvated systems <i>Inga Jordan</i>
759	Versatile velocity-map-imaging spectrometer for strong-field and attosecond experiments <i>Samuel Walt</i>
760	Versatile Non Collinear Four-Wave Mixing Set-Up Fully Based on Femtosecond Pulse Shaping for Coherent Electronic Spectroscopy <i>Franziska Frei</i>
761	Field Enhancement in THz nano-structures <i>Fabian Brunner</i>
762	Femtosecond surface second harmonic generation microscopy to probe adsorbed layers at interfaces <i>Astrid Olaya</i>

763	Interfacial Self-Assembly of Aqueous Cationic Porphyrins for Reducing Oxygen to Water <i>Astrid Olaya</i>
764	Time-resolved X-ray absorption studies on charge carrier dynamics in aqueous TiO₂ nanoparticles <i>Mercedes H. Rittmann-Frank</i>
765	Probing the structural dynamics of hemoproteins in solution by time-resolved x-ray absorption spectroscopy <i>Masha Silatani</i>
766	THz-IR Mode Coupling in Chemisorbed CO on Pt <i>Anastasija Ichsanow</i>
767	UV Two-Dimensional Spectroscopy for Biological Systems <i>Gerald Auböck</i>

8 NCCR QSIT

Friday, 22.06.2012, HCI G 3

Time	ID	QSIT I <i>Chair: Richard Warburton, Uni Basel</i>
11:00	801	Torque Magnetometry of Individual Ni Nanotubes <i>Dennis P. Weber</i>
11:15	802	Characterization of nano-scale electrical contacts using dynamical Coulomb blockade <i>Konrad H. Müller</i>
11:30	803	Scanning gate experiments on graphene nanoribbons <i>Nikola Pascher</i>
11:45	804	All Electrical Control and Slowing of Microwaves using Circuit Nano-electromechanics <i>Xiaoqing Zhou</i>
12:00		Postersession (continued), Lunchbuffet
		QSIT II <i>Chair: Klaus Ensslin, ETH Zürich</i>
13:30	811	Graphene Quantum Dots <i>Johannes Güttinger (i)</i>
14:00	812	Rectification of thermal fluctuations in a chaotic cavity heat engine <i>Björn Sothmann</i>
14:15	813	Fiber-cavity spectroscopy of quantum wells and charge-controlled quantum dots <i>Javier Miguel-Sanchez</i>
14:30	814	Supplying cluster states for one-way quantum computing <i>Daniel Becker</i>
14:45	815	Multilevel transport in a three-terminal graphene quantum dot <i>Pauline Simonet</i>
15:00	816	Quantum Hall effect in Graphene with superconducting electrodes <i>Peter Rickhaus</i>
15:15	817	Quantum Metrology with a Scanning Probe Atom Interferometer <i>Caspar Ockeloen</i>
15:30		Coffee Break

Time	ID	QSIT III <i>Chair: Matthias Christandl, ETH Zürich</i>
16:00	821	Dark state spectroscopy of a single hole spin <i>Julien Houel (i)</i>
16:30	822	Exploring cavity-mediated long-range interactions in a dilute quantum gas <i>Renate Landig</i>
16:45	823	Density functional theory for static and dynamic properties of atomic quantum gases <i>Iliia Zintchenko</i>
17:00	824	Quantum state tomography of 1000 bosons: reduced density matrices <i>Michael Walter</i>
17:15	825	Ultrastrong Coupling of the Cyclotron Transition of a 2D Electron Gas to a THz Metamaterial <i>Curdin Maissen</i>
17:30		END

ID	QSIT POSTER
841	Electronic transport in ultra-clean carbon nanotube quantum dots <i>Stefan Nau</i>
842	Quantum dots in the quantum Hall regime <i>Stephan Baer</i>
843	Progress toward nanoscale magnetic resonance with a "magnet-on-cantilever" force microscope <i>Phani Peddibhotla</i>
844	Tunnel barriers for spin injection into graphene <i>Matthias Bräuning</i>
845	A hybrid on-chip opto-nanomechanical transducer for ultra-sensitive force measurements <i>Emanuel Gavartin</i> <i>cancelled</i>
846	Probing charge noise in a semiconductor with laser spectroscopy on a single quantum dot <i>Andreas Kuhlmann</i>
847	<i>cancelled</i>
848	Cold collisions in an ion - atom hybrid trap <i>Felix Hall</i>
849	Design and development of a surface electrode ion trap for sympathetically cooled molecular ions <i>Arezo Mokhberi</i>
850	Density Matrix Renormalization Group for Optical Lattices <i>Michele Dolfi</i>
851	In search of operational quantities for characterizing large quantum systems <i>Normand Beaudry</i>
852	On the Optimality of Work Extraction in Small Thermodynamical Systems <i>Philippe Faist</i>
853	Ultra-high mobility 2DEGs to observe the 5/2-state <i>Christian Reichl</i>

9 Earth, Atmosphere and Environmental Physics

Thursday, 21.06.2012, HCI D 8

Time	ID	I: ATMOSPHERE AND GEOPHYSICS <i>Chair: Stéphane Goyette, Uni Genève</i>
13:45	901	Ionising radiation in the Environment <i>Christophe Murith (i)</i>
14:15	902	Influence of Galactic Cosmic Rays on the atmospheric composition and temperature <i>Marco Calisto</i>
14:30	903	Laser-induced aerosol generation in air <i>Massimo Petrarca</i>
14:45	904	Wind gusts parametrization methods for winter storms in Switzerland with the Canadian Regional Climate Model <i>Charles-Antoine Kuszli</i>
15:00	905	A Study of Interface Effects Between Porous and Double Porous Media <i>Eduard Oberaigner</i>
15:15	906	Fiber bundle models for granular shearing and acoustic emissions during landslide initiation <i>Denis Cohen</i>
15:30		Coffee Break

Time	ID	II: RESOURCES (GEOLOGY, MATERIALS, BIOFUELS, ENERGY & LCA) <i>Chair: Antoine Pochelon, EPFL-CRPP</i>
16:00	911	Deep structure of the Swiss Plateau from seismic-wave sounding: a new 3D seismic model of the Swiss Molasse Basin <i>François Marillier (i)</i>
16:30	912	Scarce metals - Applications, supply risks and need for action <i>Patrick A. Wäger (i)</i>
17:00	913	Roundtable on Sustainable Biofuels: Ensuring Biofuels Deliver on their Promises <i>Sebastien Haye (i)</i>
17:30	914	Energy resources, energy choices and life cycle assessment <i>Andrew Simons (i)</i>
18:00		END
18:30		Postersession and Apéro
20:15		Grillparty

Aussteller - Expositants

Agilent Technologies, CH-4052 Basel www.agilent.com	NanoScan AG, CH-8600 Dübendorf www.nanoscan.ch
attocube systems AG, DE-80539 München www.attocube.com	Oxford Cryosystems Ltd, UK-Long Hanborough, OX29 8LN www.oxcryo.com
Bruker AXS GmbH, DE-76187 Karlsruhe www.bruker.com	Schäfer-Tec AG, CH-3422 Kirchberg BE www.schaefer-tec.com
DECTRIS Ltd, CH-5400 Baden www.dectris.com	SENTECH GmbH, DE-82152 Kraling www.sentech-sales.de
Dyneos AG, CH-8307 Effretikon www.dyneos.ch	Stoe & Cie GmbH, DE-64295 Darmstadt www.stoe.com
EPL (Europhysics Letters) www.epljournal.org	Swiss Vacuum Technologies S.A., CH-2022 Bevaix www.swissvacuum.com
GMP SA, CH-1020 Renens www.gmp.ch	TECO René Koch, CH-1807 Blonay www.teco-rene-koch.com
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HORIBA Jobin Yvon GmbH, DE-64625 Bensheim www.horiba.com/de/scientific	VACOM GmbH, DE-07749 Jena www.vacom.de
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