



# Joint Annual Meeting of SPS and ÖPG 2019

## Wednesday 28 August 2019

### Poster Session: Applied Physics & Plasma Physics; Earth, Atmosphere and Environmental Physics (combined session) -

Lichthof (19:00 - 20:30)

[id] title	presenter	board
[129] 811 First results on the effects of toroidal current on 3D equilibria in magnetic fusion devices	BAILLOD, Antoine	
[148] 812 Impact of edge density fluctuations on Electron-Cyclotron beam propagation and absorption in tokamaks	CAZABONNE, Jean	

### Poster Session: Biophysics, Medical Physics and Soft Matter - Lichthof (19:00 - 20:30)

[id] title	presenter	board
[161] 911 Microfabricated cantilever beams for rapid bacterial sensitivity tests	Mr MALOVICHKO, Anton	
[111] 912 Simulation of a microfluidic system of droplets	Dr SCHNEIDER, Johannes J.	

### Poster Session: KOND - Lichthof (19:00 - 20:30)

[id] title	presenter	board
[8] 151 Time-resolved tunneling between Landau levels in a weakly coupled quantum dot in the integer and fractional quantum Hall regimes	Mr RÖÖSLI, Marc P.	
[25] 152 Characterization of Tannin-Furanic Foams by Raman Spectroscopy	Dr MUSSO, Maurizio	
[52] 153 Optimizing the mechanical performance of 3D-printed wood-fiber-reinforced biocomposites by adjusting the infill orientation	Dr MUSSO, Maurizio	
[36] 154 Finite-element mesh generation and simulation of magnetization dynamics in a three-dimensional artificial spin structure	Dr GLIGA, Sebastian	
[46] 155 Ultra-low electronic temperature measurement in a cryogen-free dilution refrigerator with an He4 immersion cell	Mr NICOLI', Giorgio	
[50] 156 Weyl Orbits Without an External Magnetic Field	DUBCEK, Tena	
[35] 157 Spin States in a Gate-Defined Quantum Point Contact in an InAs Two-Dimensional Electron Gas	MITTAG, Christopher	
[54] 158 Topological scars	OK, Seulgi	
[56] 159 The polar distortion and its relation to magnetic order in multiferroic HoMnO <sub>3</sub>	ORTIZ, Nazaret	
[66] 160 Spin-strain effects in the frustrated magnet Tb <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub>	GRITSENKO, Yulia	
[68] 161 Ground state crossings on spin clusters from tunneling interference	AGUIAR MACEIRA, Ivo	
[87] 162 Bulk electronic and local magnetic properties of semiconducting 2H-molybdenum ditelluride	KRIEGER, Jonas	
[99] 163 Magnetism in semiconducting molybdenum dichalcogenides	Dr GUGUCHIA, Zurab	

[117] 164	Towards the fabrication of ZnO-based quantum cascade lasers with double-metal waveguides	Dr HOANG, Hanh	
[123] 165	Magnetic order on a Kagome-like lattice	Mr FAVRE, Virgile	
[128] 166	RNiO <sub>3</sub> (R = La <sub>x</sub> Pr <sub>1-x</sub> ; x = 0.1 to 1.0) perovskites at the extreme: Where Metal-Insulator Transition reaches 0K	KLEIN, Yannick Maximilian	
[143] 167	Temperature-driven Topological Phase Transition and Intermediate Dirac Semimetal Phase in ZrTe <sub>5</sub>	Dr XU, Bing	
[150] 168	Sparse Sampling in Scanning Probe Microscopy	Mr OPPLIGER, Jens	
[156] 169	Orbit of an oscillating scanning probe microscope tip	Ms NIGGLI, Lorena	
[172] 170	Magnetic and superconducting properties of the iron arsenide pnictides Ba <sub>1-x</sub> NaxFe <sub>2</sub> As <sub>2</sub> as seen by infrared spectroscopy	SHEVELEVA, Evgeniia	
[191] 171	Growth of Crystal Phase Engineered Planar Films of III-V Semiconductors	STAUDINGER, Philipp	
[198] 172	Heating and dynamics in Floquet conformal field theory	Mr LAPIERRE, Bastien	
[213] 173	Size Dependent Lattice Expansion in nanocrystalline BCC Tantalum: Unusual Superconductivity and Magnetism	Dr SARKAR, Subhrangsu	
[246] 174	Quantum Mechanical Simulations of sub-atomic resolution differential phase contrast imaging of magnetic materials	EDSTRÖM, Alexander	
[251] 175	Neuromorphic Computing with coupled VO <sub>2</sub> oscillators	Ms CORTI, Elisabetta	
[259] 176	Rf modulation of surface-emitting mid-IR ring DFB Quantum Cascade Lasers	HINKOV, Borislav	
[271] 177	Homogeneous, bound-to-continuum THz Quantum Cascade Laser: 1.65 THz spectral bandwidth and RF injection locking	FORRER, Andres	
[272] 178	A polarization-rotating Vivaldi antenna for improved far-field patterns of broadband terahertz quantum cascade lasers	Mr SENICA, Urban	
[283] 180	Elucidating the impact of B incorporation in GaAs through nanowire growth	DETZ, Hermann	
[289] 181	Dispersion measurements of Terahertz Quantum Cascade Fabry-Perot cavities and VECSELS	OLARIU, Tudor	
[304] 182	Magnetic field-effect on the charge order in underdoped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>y</sub> .	LYZWA, Fryderyk	
[338] 183	Stability of the Q-phase of CeCoIn <sub>5</sub> in the presents of localized magnetic impurities	SHEN, Junying	
[339] 184	The sound of the Q-phase in CeCoIn <sub>5</sub> - an ultrasound investigation	TARTAROTTI MAIMONE, Damaris	
[105] 185	Polytypism in the NbS <sub>2</sub> +Δ system	Mrs WITTEVEEN, Catherine	

**Poster Session: MaNEP: Correlations and topology in quantum matter - Lichthof (19:00 - 20:30)**

[id]	title	presenter	board
[113] 641	Magneto-optical spectroscopy on TaAs	SANTOS-COTTIN, David	
[114] 642	Magneto-transport and optical conductivity of type II Weyl semimetals : TaIrTe <sub>4</sub>	LE MARDELÉ, Florian	
[83] 643	Dynamical Structure Factor analysis of the Bilinear Biquadratic Spin-1 chain	NAYAK, Mithilesh	

[167]	644	Electronic Phase Transitions in Suspended Graphene Multilayers	Mr SOLER DELGADO, David	
[79]	645	Topological 0D Defect States in 3D Insulators	Mr SCHINDLER, Frank	
[131]	646	Cavity-mediated fermionization of long-range interacting bosons	Mr MOLIGNINI, Paolo	
[255]	648	Tuning of the depolarization field, built-in voltage and nanodomain structure in ferroelectric thin films and heterostructures	LICHTENSTEIGER, Celine	
[133]	649	Weak Localization and Antilocalization in Nodal-Line Semimetals: Dimensionality and Topological Effects	Prof. ZILBERBERG, Oded	
[356]	651	Structure-Property Relations in the Ca <sub>1-x</sub> Sr <sub>x</sub> AlSi Solid Solution	WALICKA, Dorota	
[357]	652	Superconductivity in the $\eta$ -carbide-type oxides Zr <sub>4</sub> Rh <sub>2</sub> O <sub>x</sub>	MA, Keyuan	

**Poster Session: Nuclear, Particle and Astrophysics (TASK) - Lichthof (19:00 - 20:30)**

[id]	title	presenter	board
[10]	371 Muonic Atom Spectroscopy: Preparations Regarding a Measurement of the Charge Radius of Radium	Mr SKAWRAN, Alexander Albert	
[24]	372 Ultracold neutron production and extraction from the solid deuterium converter of the PSI UCN source	Mr RIENÄCKER, Ingo	
[30]	373 Measuring the Beryllium Isotopic Composition in Cosmic Rays with the Alpha Magnetic Spectrometer on the International Space Station	WEI, Jiahui	
[31]	374 Cosmic-ray Magnesium flux measured with the Alpha Magnetic Spectrometer on the International Space Station	Mr LIU, Zhen	
[39]	375 Cosmic-ray Silicon Flux measured with the Alpha Magnetic Spectrometer on the International Space Station	Mr CHEN, Yao	
[43]	376 Diffusion of muonic atoms in the muX gas cell	NUBER, Jonas	
[90]	377 A 2.6m tall DARWIN Demonstrator	GIRARD, Frédéric	
[92]	378 Identification of <sup>137</sup> Xe like a background for 0νββ searches with DARWIN	SANCHEZ-LUCAS, Patricia	
[96]	379 Beam EDM detector characterization	Mr SOLAR, Marc	
[119]	380 Experimental strategy to test Lepton Flavour Universality in $B \rightarrow s l^+ l^-$ decays at LHCb	CELANI, Sara	
[149]	381 Qualification of the Radiation-Hard Electron Monitor (RADEM) for ESA JUICE mission	SOCHA, Patryk	
[160]	382 Real-time detection of Supernova Neutrinos in XENONnT	Mr PERES, Ricardo	
[186]	383 XENONnT: The next stage in the search for dark matter with liquid xenon	BROWN, Adam	
[190]	384 Lamb Shift of (Anti)hydrogen	Mr NANDAL, Devesh	
[215]	385 The SHiP-Charm Experiment	DE SIMONE, Dario	
[261]	386 Detection System for NoMoS	Mr KHALID, Waleed	

**Poster Session: Quantum Beam Science: bio, materials and fundamental physics with neutrons and X-rays - Lichthof (19:00 - 20:30)**

[id]	title	presenter	board
------	-------	-----------	-------

[263] 721	<b>Correlation between O-vacancies and electrochemical activity of PrBaCo<sub>2</sub>O<sub>5+x</sub> (0.17 ≤ x ≤ 0.79)</b>	MARELLI, Elena	
[363] 722	<b>Design rules for high-temperature magnetic spirals in layered perovskites</b>	SHANG, Tian	
[364] 723	<b>Spin-Rotation Coupling Observed in Neutron Interferometry</b>	DANNER, Armin	

**Poster Session: Quantum Science and Technology - Lichthof (19:00 - 20:30)**

[id]	title	presenter	board
[16]	551 <b>Fabry-Pérot interference in InAs/GaSb quantum wells</b>	MASSERONI, Michele	
[17]	552 <b>Investigating coherence limitations in transmon qubits</b>	MERGENTHALER, Matthias	
[64]	553 <b>Optimal Control of Superconducting Qubits</b>	Mr WERNINGHAUS, Max	
[73]	554 <b>Entanglement in special relativistic settings</b>	Mr SCHÖBERL, Christoph	
[74]	555 <b>Quantum informational analysis of neutrino oscillations via Leggett-Garg inequalities</b>	Ms SCHULTZE, Christiane	
[81]	556 <b>Investigating noise sources with a triple quantum dot charge qubit</b>	Mr KRATOCHWIL, Benedikt	
[98]	557 <b>Measurable Inequalities for higher dimensional Quantum Secret Sharing Protocols</b>	Mr PARTENER, Michael	
[142]	558 <b>Dissipative time-crystal phase in parametrically unstable optical cavities</b>	SEIBOLD, Kilian Robert	
[168]	559 <b>Entangled two-photon absorption and the quantum advantage in sensing</b>	TABAKAEV, Dmitry	
[189]	560 <b>Spin detection through parametric mode coupling in nanomembranes</b>	KOSATA, Jan	
[206]	561 <b>Quantum dynamics of an ultracold ion coupled to a nanomechanical oscillator</b>	WEEGEN, Moritz	
[209]	562 <b>Quantum-Logic Assisted Molecular Precision Measurements Using a Network for The Distribution of The Swiss Frequency Standard</b>	SHLYKOV, Aleksandr	
[211]	563 <b>Classical many-body time crystals</b>	HEUGEL, Toni	
[223]	564 <b>Cavity Exciton-Polariton Condensates in Engineered Potential Landscapes at Room Temperature</b>	Mr SCAFIRIMUTO, Fabio	
[224]	565 <b>Bidirectional Microwave to Optical Gaussian Quantum State Transfer</b>	RUEDA, Alfredo	
[253]	567 <b>Integrating a fiber cavity along the axis of a linear ion trap</b>	SCHÜPPERT, Klemens	
[265]	568 <b>High-rate photon pairs and sequential Time-Bin entanglement with Si<sub>3</sub>N<sub>4</sub> ring microresonators</b>	SAMARA, Farid	
[284]	569 <b>Optical spin-wave storage in a paramagnetic solid state crystal</b>	BUSINGER, Moritz	
[295]	570 <b>Coupled Quantum Dots in Bilayer Graphene with Tunable Barriers</b>	Ms TONG, Chuyao	
[307]	571 <b>Accuracy enhancing protocols for quantum clocks</b>	Dr YANG, Yuxiang	
[352]	572 <b>Can quantum algorithms in chemistry outperform their classical equivalent? Advanced Quantum Unitary Coupled Cluster methods for strongly correlated systems.</b>	SOKOLOV, Igor	
[353]	573 <b>Strong magneto-mechanical coupling</b>	ZÖPFL, David	
[146]	574 <b>Dimerized states and dynamical instabilities in a blue-detuned cavity-BEC system</b>	LIN, Rui	

[354] 575 Qubit-losses in topological quantum computers: An experimental toolbox	STRICKER, Roman	
--	-----------------	--

**Poster Session: Skyrmions in magnetic materials - Lichthof (19:00 - 20:30)**

[id] title	presenter	board
[93] 671 Low frequency resonance mode in the insulating chiral magnet Cu <sub>2</sub> OSeO <sub>3</sub> at low temperature	Mr CHEN, Jilei	
[104] 672 Crystallite size dependency on magnetic phase diagram of Cu <sub>2</sub> OSeO <sub>3</sub>	BARAL, Priya Ranjan	
[112] 673 van Der Waals Epitaxy Of Co-Zn-Mn on Graphene for Skyrmionic Applications	KUKOLOVA, Anna	

**Poster Session: Surfaces, Interfaces and Thin Films - Lichthof (19:00 - 20:30)**

[id] title	presenter	board
[38] 231 Material characterization with positrons - Unique and complementary insights	GERCHOW, Lars	
[70] 232 Modulated magnetic-field susceptibility measurements for in-situ studies of organic/ferromagnetic interfaces	Mr BROZYNIAK, Aleksander	
[75] 233 Role of the surface structure in determining ferroelectric polarization direction	GATTINONI, Chiara	
[176] 234 Probing the origin of ferromagnetic stability in LSMO/SRO	ZAKHAROVA, Anna	
[179] 235 Development of a Low-Temperature Scanning Field Emission Microscope with Spin Polarization Analysis	THAMM, Ann-Katrin	
[180] 236 Electronic properties of hexagonal Boron Nitride on Pt(110)	THALER, Marco	
[222] 237 Exploring the electron transfer at cuprate/manganite interfaces	GAINA, Roxana	
[239] 238 Detection and Analysis of Low-Energy Electrons by means of a Miniature Energy Analyser: Experimental Characterisation and Preliminary Results	Dr BELLISSIMO, Alessandra	
[169] 239 Multi-parameter Analysis of Genesis and Evolution of Secondary Electrons in the Low-Energy Regime	Dr BELLISSIMO, Alessandra	
[11] 240 Solvent induced crystallization and physical properties of silk sericin film	UM, In Chul	

# Thursday 29 August 2019

**Poster Session: Poster Session and Lunch Buffet - Lichthof (12:00 - 14:00)**