



# JOINT ANNUAL MEETING

of the  
Austrian and Swiss Physical Society

18 - 22 August 2025, Universität Wien

## Programmübersicht Program Overview



in Zusammenarbeit mit - in collaboration with



## Programmübersicht - Program Overview

Das vollständige Programm mit den Abstracts erscheint demnächst und wird auf der Konferenzwebseite ([oepg-sps-meeting-vienna2025.univie.ac.at](http://oepg-sps-meeting-vienna2025.univie.ac.at)) und der SPG Webseite ([www.sps.ch](http://www.sps.ch)) publiziert.

Hinweise:

- Je Beitrag ist nur der präsentierende Autor aufgeführt.
- Die Postersitzung findet am Mittwoch von 16:00 - 19:00 (mit Apéro) statt.
- (p) = Plenarsprecher, (k) = Keynote Sprecher, (i) = eingeladene Sprecher

Das Programm am Montag 18. August ist von der Konferenzgebühr ausgenommen. Eine Anmeldung ist nur für die anderen Tage erforderlich.

### Energy Day

Monday, 18.08.2025, Room Großer Festsaal

| Time  | ID | ENERGY DAY<br>Chair: Tomoko Muranaka, EPFL;<br>Stephan Wirths, Hitachi Energy                |
|-------|----|--|
| 09:00 | 1  | Renewable energy production and sustainable material design<br>Anna Fontcuberta i Morral (p) |
| 09:45 | 2  | Efficiency in Computing and Energy Conversions<br>Bruno Michel (i)                           |
| 10:30 |    | Coffee Break   |
|       |    | Chair: Robert Hauser, FH Kärnten;<br>Christoph Reichl, AIT                                   |
| 11:00 | 3  | Energy Efficient HPC in the Exascale Era<br>Siegfried Höfinger (i)                           |
| 11:30 | 4  | Energy Efficiency and Cooling Strategies at ASC<br>Valentin Hirschbrich (i)                  |
| 12:00 | 5  | Panel Discussion<br>Moderation: Herbert Störi, TU Wien                                       |
| 12:30 |    | END; Lunch   |

### Public Symposium: 100 Years of Quantum Physics & Public Lecture

Monday, 18.08.2025, Room Großer Festsaal

| Time  | ID | 100 YEARS OF QUANTUM PHYSICS<br>Chair: Jérôme Baudry, EPF Lausanne  |
|-------|----|---|
| 14:00 | 11 | The Tangled Tale of Entanglement: New Discoveries from Schrödinger's Research Notes<br>Christoph Lehner (p)                     |
| 14:45 | 12 | Scenes from the Quantum Century: From Curious Hippies to Novel Tests of Bell's Inequality<br>David Kaiser (p)                   |
| 15:30 |    | Coffee Break  |
|       |    | Chair: Christian Wüthrich, Université de Genève   |
| 16:00 | 13 | Philosophy of Quantum Mechanics Beyond the Measurement Problem<br>Alyssa Ney (p)  |
| 16:45 | 14 | Wolfgang Pauli's and Erwin Schrödinger's Insights from the Perspective of a Modern Quantum Technologist<br>Beatrix Hiesmayr (p) |

The complete program including the abstracts will appear shortly and will be published on the conference website ([oepg-sps-meetingvienna2025.univie.ac.at](http://oepg-sps-meetingvienna2025.univie.ac.at)) as well as the SPS website ([www.sps.ch](http://www.sps.ch)).

Notes:

- each contribution lists only the presenting author.
- the poster session will take place on Wednesday from 16:00 - 19:00 (with apéro).
- (p) = plenary speaker, (k) = keynote speaker, (i) = invited speaker

The program of Monday 18 August is exempt of the conference fee. A registration is only needed for the other days.

|       |    |  |
|-------|----|--|
| 17:30 |    | END, Welcome Reception   |
| 18:00 |    | General Assemblies of ÖPG * and SPS **                           |
|       |    | PUBLIC LECTURE<br>Chair: Michel Calame, Empa & Universität Basel |
| 19:00 | 15 | The European X-Ray Free Electron Laser<br>Thomas Feurer (p)      |
| 20:15 |    | END  |

\* ÖPG: Room HS 31, \*\* SPS: Room HS 30

### Women in Physics Career Symposium

THIS EVENT IS SUPPORTED BY SPS, ÖPG, UNIVERSITÄT ZÜRICH, PSI VILLIGEN, SCNAT, UNIVERSITÉ DE GENÈVE, SFB BEYOND C AND SOROPTIMISTINNEN WIEN-BELVEDERE.

Monday, 18.08.2025, Room Senatssaal

| Time  | ID | WOMEN IN PHYSICS CAREER SYMPOSIUM  |
|-------|----|--|
| 12:30 |    | Fingerfood for participants of the symposium<br>Chair: Philipp Schmidt-Wellenburg, PSI Villigen              |
| 13:15 | 21 | ESO engagement in Equity, Diversity and Inclusion<br>Francesca Primas (p)<br>Chair: Ille Gebeshuber, TU Wien |
| 14:00 | 22 | Career Talk 1: Beatrix Hiesmayr (i)  |
| 14:30 | 23 | Career Talk 2: Kimberly Modic (i)  |
| 15:00 | 24 | Interactive Career Workshop with Francesca Primas  |
| 15:30 |    | Coffee Break<br>Chair: Tobias Golling, Université de Genève  |
| 16:00 |    | Workshop continued   |
| 17:00 | 25 | Career Talk 3: Anna Spindelberger (i)  |
| 17:30 | 26 | Career Talk 4: Rachel Grange (i)   |
| 18:00 |    | END  |
| 18:00 |    | General Assemblies of ÖPG * and SPS **   |
| 19:00 |    | Public Lecture   |

## Plenary Session

Tuesday, 19.08.2025, Room Großer Festsaal

| Time  | ID | OFFICIAL CONFERENCE OPENING  |
|-------|----|--|
| 08:50 |    | <b>Welcome Note</b><br><i>Manuela Baccarini, Vice-Rector Research, University of Vienna; Alberta Bonanni, ÖPG President; Teresa Montaruli, SPS President</i> |
|       |    | <b>PLENARY SESSION I</b><br><i>Chair: Markus Aspelmeyer, Universität Wien</i>  |
| 09:00 | 31 | <b>The Next 100 Years of Quantum Mechanics</b><br><i>Caslav Brukner (p)</i>  |
|       |    | <i>Chair: Rachel Grange, ETH Zürich</i>  |
| 09:45 | 32 | <b>Spin Qubits in Semiconductors for Scalable Quantum Computers</b><br><i>Daniel Loss (p)</i>  |
| 10:30 |    | <b>Coffee Break</b>  |
| 11:00 |    | <b>Award Ceremony</b>  |
|       |    | <i>Chair: Hugo Zbinden, Université de Genève</i>   |
| 12:00 | 33 | <b>Quantum Threats and Opportunities for Secure Communication</b><br><i>Nicolas Sangouard (i)</i>  |
|       |    | <i>Chair: Christian Teichert, Montanuniversität Leoben</i>   |
| 12:30 | 34 | <b>AYPT: 27 Years, 17 Problems, 7 Challenges</b><br><i>Paul Worm (i)</i>   |
| 13:00 |    | <b>Lunch</b>   |
| 14:00 |    | <b>Topical Sessions</b>  |
| 18:00 |    | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>  |

Tuesday, 19.08.2025, ÖAW Festsaal

| Time  | ID | PUBLIC LECTURE   |
|-------|----|--|
|       |    | <i>Chair: Christian Wüthrich, Université de Genève</i>   |
| 19:00 | 35 | <b>Physical understanding in the times of AI. A philosophical analysis.</b><br><i>Claus Beisbart (p)</i> |
| 20:15 |    | <b>END</b>   |

Wednesday, 20.08.2025, Room Großer Festsaal

| Time  | ID | PLENARY SESSION II:<br>SYMPOSIUM "ERC FUNDING IN QUANTUM SCIENCE"  |
|-------|----|--|
| 08:30 |    | <b>Opening remarks</b><br><i>Markus Aspelmeyer, Axel Cleeremans, Silke Bühler-Paschen</i>  |
|       |    | <i>Chair: Markus Aspelmeyer, Universität Wien</i>  |
| 09:00 | 36 | <b>When Crystals Flow: The Emergence of Supersolid Quantum States</b><br><i>Francesca Ferlaino (p)</i>                               |
| 09:45 | 37 | <b>A mechanical qubit</b><br><i>Yiwen Chu (p)</i>  |
| 10:30 |    | <b>Coffee Break</b>  |
|       |    | <i>Chair: Silke Bühler-Paschen, TU Wien</i>  |
| 11:00 | 38 | <b>Models and methods in the study of high-temperature superconductivity</b><br><i>Jaksa Vucicevic (i)</i>                           |
| 11:30 | 39 | <b>Non-equilibrium self-assembly in quantum materials: emergence of trapped quasiparticle noise.</b><br><i>Dragan Mihailović (i)</i> |

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|-------|----|---|
| 12:00 | 40 | <b>The Quantum Twisting Microscope: Visualizing Waves in Quantum Matter</b><br><i>Shahal Ilani (i)</i>                                |
| 12:30 |    | <b>Lunch</b>  |
|       |    | <i>Chair: Jörg Schmiedmayer, TU Wien</i>  |
| 14:00 | 41 | <b>The laser in quantum science</b><br><i>Serge Haroche (p)</i>   |
| 14:45 | 42 | <b>Panel Discussion:</b><br><b>From Blue Sky Research to Quantum Technologies</b><br><i>Moderation: Silke Bühler-Paschen, TU Wien</i> |
| 15:45 |    | <b>Exhibitor Presentation Session</b>   |
| 16:00 |    | <b>Poster Session with Apéritif</b>   |
| 19:00 |    | <b>END</b>  |

Thursday, 21.08.2025, Room Großer Festsaal

| Time  | ID | PLENARY SESSION III   |
|-------|----|---|
|       |    | <i>Chair: Gernot Eichmann, Universität Graz</i>   |
| 09:00 | 43 | <b>Status of the anomalous magnetic moment of the muon</b><br><i>Martin Hoferichter (p)</i>                       |
|       |    | <i>Chair: Peter Korczak, ÖPG</i>  |
| 09:45 | 44 | <b>Trapped-ion quantum computing at Infineon</b><br><i>Clemens Rössler (p)</i>                                    |
| 10:30 |    | <b>Coffee Break</b>   |
|       |    | <i>Chair: Michel Calame, Empa &amp; Universität Basel</i>   |
| 11:00 | 45 | <b>Broadband integrated photonics with planarized terahertz quantum cascade lasers</b><br><i>Urban Senica (i)</i> |
| 11:30 | 46 | <b>Engineering Andreev band structures in multi-terminal Josephson junctions</b><br><i>Marco Coraiola (i)</i>     |
|       |    | <i>Chair: Gian Salis, IBM Rueschlikon</i>   |
| 12:00 | 47 | <b>Electrical and Optical Manifestation of Flat Bands in 2D Semiconductors</b><br><i>Gabriele Pasquale (i)</i>    |
| 12:30 |    | <b>Lunch</b>  |
| 14:00 |    | <b>Topical Sessions</b>   |
|       |    | <b>Transfer to Dinner</b>   |
| 19:00 |    | <b>Conference Dinner</b>  |

Friday, 22.08.2025, Room Großer Festsaal

| Time  | ID | PLENARY SESSION IV   |
|-------|----|--|
|       |    | <i>Chair: Rainer Leitgeb, Med. Universität Wien</i>  |
| 09:00 | 48 | <b>Using cellular phase transitions to understand cancer</b><br><i>Roberto Cerbino (p)</i> |
|       |    | <i>Chair: Ulrike Diebold, TU Wien</i>  |
| 09:45 | 49 | <b>Towards Quantum Computing with Spins on Surfaces</b><br><i>Andreas Heinrich (p)</i>     |
| 10:30 |    | <b>Coffee Break</b>  |
|       |    | <i>Chair: Teresa Montaruli, Université de Genève</i>                                       |
| 11:00 | 50 | <b>A matter of time, gravity and galaxies</b><br><i>Sveva Castello (i)</i>                 |
| 11:30 | 51 | <b>Oscillating rings, IPT 2025</b><br><i>Tamás Simon (i), Hannes Ischinger (i)</i>         |

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|-------|----|--|
| Time  | ID | Chair: Sebastian Knauer, Universität Wien<br>(ÖPG Young Minds)   |
| 12:00 | 52 | From Pen and Paper to Neural PDE Solvers: The Evolving Landscape of Computational Physics<br>Claas Abert (i) |
| 12:30 |    | Poster Awards and Closing Ceremony   |
| 12:45 |    | End; Lunch   |
| 14:00 |    | Topical Sessions   |
| 16:00 |    | CONFERENCE END   |

## History and Philosophy of Physics

Tuesday, 19.08.2025, Room Erika Weinzierl Saal

|       |    |   |
|-------|----|---|
| Time  | ID | HISTORY AND PHILOSOPHY OF PHYSICS<br>Chair: Bruno Besser, ÖAW Graz,<br>Christian Wüthrich, Université de Genève,<br>Jérôme Baudry, EPF Lausanne |
| 14:00 | 61 | A Medieval Planetary Diagram in the University Library Graz, Austria<br>Sonja Draxler   |
| 14:15 | 62 | Erwin Schrödinger's explanation of abnormal audibility of artillery explosions<br>Heinz Krenn   |
| 14:30 | 63 | Bohr's Complementarity in the Age of Quantum Information: Bridging Epistemology and Quantum Foundations<br>Marina Passaro                       |
| 14:45 | 64 | Ignored because of prejudices? The late discovery of the Aharonov-Bohm effect from a historical-philosophical perspective<br>Guy Hetzroni       |
| 15:00 | 65 | The Atomic Clock Program at Neuchâtel (1952-1967)<br>Ion Mihailescu   |
| 15:15 | 66 | cancelled   |
| 15:30 |    | END; Coffee Break   |

## Physics and School

Tuesday, 19.08.2025, Room HS 27

|       |           |   |
|-------|-----------|---|
| Time  | ID        | PHYSICS AND SCHOOL I<br>Chair: Alexander Strahl, Universität Salzburg   |
| 14:00 | 71<br>A-E | Preisträgervorträge der ABA-Preisträgerinnen und -Preisträger der ÖPG 2025<br>NN  |
| 14:50 | 72        | Vorstellung des IYPT Tournament<br>NN   |
| 15:05 | 73        | Vorstellung der Physikolympiade<br>NN   |
| 15:20 |           |   |
| 15:30 |           | Coffee Break  |
|       |           | PHYSICS AND SCHOOL II<br>Chair: Alexander Strahl, Universität Salzburg  |
| 16:00 | 74        | Understanding of Nature of Science and Dealing with Errors<br>Rahel Schmid (i)  |
| 16:30 | 75        | Schrödinger's cat in basic physics instruction - Sketch of a learning path for the Swiss Gymnasium<br>Hans Peter Dreyer |

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|-------|----|--|
| 16:45 | 76 | PPLUS: Project-based Physics Lab for Undergraduate Students<br>Andreas Eggenberger   |
| 17:00 | 77 | Making physics matter - Strategies for science communication<br>Henrik Siboni  |
| 17:15 | 78 | PLANCKS Austria: Competing, Connecting, and Changing Physics Education<br>Christian Binder   |
| 17:30 | 79 | Empowering Youth Through Physics by Three Innovative Approaches in Hands-On School Outreach: Iridescent Chocolate, Iridescent Kombucha Vegan Leather and Complex Mycelium Shapes<br>Ille C. Gebeshuber |
| 17:45 |    | END  |
|       |    | Transfer to ÖAW<br>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien  |
| 19:00 |    | Public Lecture   |

## Progress in Material Sciences – from Lab to Industry (Physics in Industry)

Thursday, 21.08.2025, Room HS 30

|       |    |  |
|-------|----|--|
| Time  | ID | PROGRESS IN MATERIAL SCIENCES –<br>FROM LAB TO INDUSTRY<br>Chair: Gian Salis, IBM Rüschlikon,<br>Peter Korczak, ÖPG                                    |
| 14:00 | 81 | Diamond thin films – from lab to industry<br>Doris Steinmüller-Nethl (i)   |
| 14:20 | 82 | Thin film coatings – addressing modern industry challenges<br>Georgios Christides (i)  |
| 14:40 | 83 | High-k SiC power MOSFETs for the next generation of E-mobility power modules<br>Stephan Wirths (i)   |
| 15:00 | 84 | Elucidating the diffusion of hydrogen in Zn coatings for the steel industry<br>Andreas Kretschmer  |
| 15:20 |    |  |
| 15:30 |    | Coffee Break   |
|       |    | Chair: Christian Teissl, FabLab. Tirol   |
| 16:00 | 85 | A brain-inspired computing approach – the role of material science<br>Wooseok Choi (i)   |
| 16:20 | 86 | The world of refractory metals molybdenum and tungsten – linking basic research and industrial applications<br>Arno Plankensteiner (i)                 |
| 16:40 | 87 | Printed Piezoelectric Transducers as Highly Integrated Nanogenerators for Harvesting Deformation, Motion and Vibration Energy<br>Barbara Stadlober (i) |
| 17:00 | 88 | GaN – much more than a semiconductor<br>Clemens Ostermaier (i)   |
| 17:20 | 89 | Advances in green manufacturing of Li-ion batteries for scalable eco-friendly production<br>Marcus Jahn (i)  |
| 17:40 |    | Discussion   |
| 18:00 |    | END  |
|       |    | Transfer to Dinner   |
| 19:00 |    | Conference Dinner  |

## Condensed Matter

THIS SESSION HAS BEEN ORGANISED IN THE FRAME OF THE INITIATIVE  
**CONDENSED MATTER IN CENTRAL EUROPE.**

Tuesday, 19.08.2025, Room HS 31

| Time  | ID  | <b>KOND I: MAGNETISM I</b><br><i>Chair: Andrii Chumak, Universität Wien</i>  |
|-------|-----|--|
| 14:00 | 101 | Magnetoresistance in Antiferromagnets<br><i>Karel Vyborny (k)</i>  |
| 14:30 | 102 | Chiral nanomagnetism induced by 3D nanopatterning<br><i>Amalio Fernandez-Pacheco (i)</i>   |
| 15:00 | 103 | Doping-controlled magnetic and optical effects in $\text{EuCd}_2\text{X}_2$<br><i>David Santos-Cottin</i>                        |
| 15:15 |     |  |
| 15:30 |     | <b>Coffee Break</b>  |
|       |     | <b>KOND II: MAGNETISM II</b><br><i>Chair: Alberta Bonanni, JKU Linz</i>  |
| 16:00 | 105 | Magnetic anisotropy and symmetry of unconventional antiferromagnets<br><i>Mirta Herak (k)</i>                                    |
| 16:30 | 106 | At the Frontier of Altermagnetism: Unraveling MnTe's Dual-Channel Photoresponse to Polarized Light<br><i>Juraj Krempasky (i)</i> |
| 17:00 | 107 | Altermagnet / Superconductor / Altermagnet Tunneling Junction<br><i>František Herman (i)</i>                                     |
| 17:30 | 108 | Anomalous temperature dependence of local magnetic fields in altermagnetic MnTe<br><i>Jonas A. Krieger</i>                       |
| 17:45 | 109 | Percolative metallic state with Kondo-like behavior in manganites $\text{Ca}_{1-x}\text{Gd}_x\text{MnO}_3$<br><i>Matija Culo</i> |
| 18:00 |     | <b>END</b>   |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>  |
| 19:00 |     | <b>Public Lecture</b>  |

Tuesday, 19.08.2025, Room HS 33

| Time  | ID  | <b>KOND III: QUANTUM DOTS &amp; 2D MATERIALS I</b><br><i>Chair: Danko Radić, University of Zagreb</i>  |
|-------|-----|--|
| 14:00 | 111 | Gate defined electron and hole quantum dots in bilayer graphene<br><i>Luca Banszerus (k)</i>   |
| 14:30 | 112 | Shaped pulses enable robust quantum dot coherent control<br><i>Vikas Remesh (i)</i>  |
| 15:00 | 113 | Strong magnon-spin coupling between layered van der Waals antiferromagnet CrSBr and paramagnetic ion crystal $\text{GdW}_{10}$<br><i>David Garcia Pons</i> |
| 15:15 | 114 | Pore shape selection in hexagonal boron nitride (hBN) with electron beam induced chemical effects<br><i>Umair Javed</i>                                    |
| 15:30 |     | <b>Coffee Break</b>  |
|       |     | <b>KOND IV: 2D MATERIALS II</b><br><i>Chair: Daniel Mazzone, PSI Villigen</i>  |
| 16:00 | 121 | Multifrequency Excitation and High Dynamic Range Tunneling Spectroscopy<br><i>Fabian Natterer (k)</i>  |

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|-------|-----|--|
| 16:30 | 122 | Atom diffraction through a free-standing 2D crystal<br><i>Toma Susi (i)</i>                                |
| 17:00 | 123 | Bi-modal response in Graphene Nanoribbon Devices<br><i>Christian Teichert (i)</i>                          |
| 17:30 | 124 | Charge Density Wave Ground State in the Intercalated Graphite $\text{CaC}_6$<br><i>Petra Đurkas Grozić</i> |
| 17:45 | 125 | Quantum confinement effects in rhombohedral and hexagonal graphite nanoribbons<br><i>Konrad Kandrai</i>    |
| 18:00 |     | <b>END</b>   |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>                                    |
| 19:00 |     | <b>Public Lecture</b>  |

Tuesday, 19.08.2025, Room HS 7

| Time  | ID  | <b>KOND V: CORRELATED MATERIALS I</b><br><i>Chair: Aline Ramires, TU Wien</i>  |
|-------|-----|--|
| 14:00 | 131 | Exact method for polarons with arbitrary nonlinear electron-phonon interaction: description of quantum paraelectric by double-well "Jahn-Teller" type potential.<br><i>Andrey Mishchenko (i)</i> |
| 14:30 | 132 | Novel States of Matter with Site- and Orbital-Selectivity as an Alternative to 'Charge Disproportionation' in Correlated Materials<br><i>Gheorghe Lucian Pascut (i)</i>                          |
| 15:00 | 133 | O(3) Conformal Field Theory from a Truncated Quantum Rotor on the Fuzzy Sphere<br><i>Arjun Dey</i>   |
| 15:15 | 134 | Charge transport in two-dimensional system with massive and massless Mexican-hat-like bands<br><i>Zoran Rukelj</i>   |
| 15:30 |     | <b>Coffee Break</b>  |
|       |     | <b>KOND VI: SUPERCONDUCTIVITY I</b><br><i>Chair: Bela Pecz, HUN-REN Centre for Energy Research, Budapest</i>   |
| 16:00 | 141 | Nanomechanical cat states in NEM-based quantum processing<br><i>Danko Radić (k)</i>  |
| 16:30 | 142 | Cuprates, Pnictides, and Sulfosalts: Lessons in Functional Materials<br><i>Denis Karl Sunko (i)</i>  |
| 17:00 | 143 | Discovery of Charge Order and a Dome-Shaped Superconducting Phase Diagram in the Kagome System $\text{LaRu}_3\text{Si}_2$<br><i>Zurab Guguchia (i)</i>   |
| 17:30 | 144 | Accidental cancellation of out-of-plane hopping amplitudes and breakdown of Drude behavior as the origin of anomalous c-axis resistivity of $\text{Sr}_2\text{RuO}_4$<br><i>Sophie Beck</i>      |
| 17:45 | 145 | A dynamical vertex approximation perspective on superconductivity in infinite-layer nickelates<br><i>Viktor Christiansson</i>  |
| 18:00 |     | <b>END</b>   |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>  |
| 19:00 |     | <b>Public Lecture</b>  |

## Thursday, 21.08.2025, Room HS 31

| Time  | ID             | <b>KOND VII: MAGNETISM III</b><br>Chair: Martin Gmitra, P. J. Šafárik University, Košice  |
|-------|----------------|---|
| 11:00 | 151            | Topological magnetism of centrosymmetric skyrmion hosts<br>Matjaž Gomilšek (k)  |
| 11:30 | 152            | Topological meron-antimeron domain walls and skyrmions in a low-symmetry system<br>Levente Rózsa (i)  |
| 12:00 | 153            | Long-range propagating paramagnons<br>Sebastian Knauer  |
| 12:15 | 154            | Realization of Inverse-Design Magnonic Logic Gates<br>Fabian Majcen   |
| 12:30 |                | <b>Lunch</b>  |
|       |                | <b>KOND VIII: MAGNETISM IV</b><br>Chair: Ana Akrap, University of Zagreb  |
| 14:00 | 161            | Spectroscopy of coupled magnetic and electric resonances<br>Dávid Szaller (k)   |
| 14:30 | 162            | Unraveling the magnetic order in kagome magnet $\text{Co}_3\text{Sn}_2\text{S}_2$<br>Yona Soh (i)   |
|       | <del>163</del> | <i>cancelled</i>  |
| 15:00 | 164            | Steady state currents defy non-Hermitian many-body localization<br>Pietro Brighi  |
| 15:15 |                |   |
| 15:30 |                | <b>Coffee Break</b>   |
|       |                | <b>KOND IX: 2D MATERIALS III</b><br>Chair: Ivica Zivkovic, EPF Lausanne   |
| 16:00 | 171            | Rhombohedral graphite as the simplest platform for exploring strong correlations in topological electron systems<br>Peter Nemes-Incze (k)                                       |
| 16:30 | 172            | Unconventional temperature evolution of quantum oscillations in topological insulator $\text{BiSbTe}_2\text{S}$<br>Mario Novak (i)  |
| 17:00 | 173            | Electronic, and Magnetic Properties of Intercalated 2H-NbS <sub>2</sub> and 2H-TaS <sub>2</sub><br>Gaurav Pransu  |
| 17:15 | 174            | Spin Bridges and Transport Barriers: Contrasting Electronic Effects of Co and Ni Intercalation in 2H-NbS <sub>2</sub><br>Petar Popčević   |
|       | <del>175</del> | <i>cancelled</i>  |
| 17:30 | 176            | Control of antiferromagnetism in $\text{La}_{0.8}\text{Sr}_{0.2}\text{MnO}_3$ ultrathin films driven by interfacial chemical potential mismatch<br>Carlos Antonio Fernandes Vaz |
| 17:45 |                | <b>END</b>  |
|       |                | <b>Transfer to Dinner</b>   |
| 19:00 |                | <b>Conference Dinner</b>  |

## Thursday, 21.08.2025, Room HS 33

| Time  | ID  | <b>KOND X: SEMICONDUCTORS</b><br>Chair: Milan Sýkora, Comenius University, Bratislava      |
|-------|-----|--|
| 11:00 | 181 | Perovskites for photovoltaics: growth and stability characterization<br>Nada Mrkyvkova (k) |

| 11:30 | 182 | Observation of entangled electron-zone boundary phonon states with transient spectroscopic ellipsometry<br>Kurt Hingerl                       |
|-------|-----|---|
| 11:45 | 183 | Characterization of Excitons for bulk Black Phosphorus<br>Juan Felipe Pulgarin Mosquera   |
| 12:00 | 184 | Magnetic co-doping in $\text{Al}_x\text{Ga}_{1-x}\text{N}$ : An emission Mössbauer spectroscopy study<br>Rajdeep Adhikari                     |
| 12:15 | 185 | Epitaxial control of silicon color centers for quantum applications at telecom wavelengths<br>Johannes Aberl                                  |
| 12:30 |     | <b>Lunch</b>  |
|       |     | <b>KOND XI: SUPERCONDUCTIVITY II</b><br>Chair: Silke Bühler-Paschen, TU Wien  |
| 14:00 | 191 | Dual ground states in $\text{Ce}_3\text{PtIn}_{11}$ - Coexistence of Magnetism and Superconductivity<br>Jeroen Custers (i)                    |
| 14:30 | 192 | Differentiation of Site-Sensitive Symmetry Breakings<br>Johan Chang (i)   |
| 15:00 | 193 | Transverse magnetic susceptibility reveals gigantic magnetic anisotropy in $\text{UTe}_2$ at high fields<br>Valeska Zambra                    |
| 15:15 | 194 | Stripe order in cuprates: a new perspective from high magnetic field scattering experiments<br>Leonardo Martinelli                            |
| 15:30 |     | <b>Coffee Break</b>   |
|       |     | <b>KOND XII: SUPERCONDUCTIVITY III</b><br>Chair: Johan Chang, Universität Zürich  |
| 16:00 | 201 | Magnetism and superconducting pairing in spin-state crossover nickelates<br>Jiří Chaloupka (k)  |
| 16:30 | 202 | Effects of the in-plane stress on stripe order in $\text{La}_{1.875}\text{Ba}_{0.125}\text{CuO}_4$ - insights from NMR<br>Mihael S. Grbic (i) |
| 17:00 | 203 | Persistence of Small Polarons into the Superconducting Phase of $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$<br>Nicholas Plumb (i)                 |
| 17:30 | 204 | Quantum-Corrected Drude-Lorentz Model of Optical Conductivity in Disordered Superconducting Films<br>Pavol Neilinger                          |
| 17:45 |     | <b>END</b>  |
|       |     | <b>Transfer to Dinner</b>   |
| 19:00 |     | <b>Conference Dinner</b>  |

## Friday, 22.08.2025, Room 31

| Time  | ID  | <b>KOND XIII: 2D MATERIALS IV &amp; TOPOLOGY</b><br>Chair: Christian Teichert, Montanuniversität Leoben |
|-------|-----|---|
| 11:00 | 211 | Spintronics in 2D: Graphene and Beyond in van der Waals Heterostructures<br>Martin Gmitra (k)           |
| 11:30 | 212 | Oxidized MoS <sub>2</sub> based memristors<br>Katharina Burgholzer (i)                                  |
| 12:00 | 213 | Topological superconductivity studied from first principles<br>Laszlo Szunyogh (i)                      |
| 12:30 |     | <b>Poster Awards and Closing Ceremony</b>   |
| 12:45 |     | <b>Lunch</b>  |

| Time  | ID  | <b>KOND XIV: MAGNETISM V</b><br><i>Chair: Dávid Szaller, University of Technology and Economics, Budapest</i>     |
|-------|-----|---|
| 14:00 | 221 | Magnetization processes and emergent magnetic excitations of the double spin ladder Cu-CPA<br><i>Tina Arh (i)</i> |
| 14:30 | 222 | Long-living magnons at the quantum limit<br><i>Rostyslav Serha (i)</i>  |
| 15:00 | 223 | Steerable current-driven emission of spin waves in magnetic vortex pairs<br><i>Sabri Koraltan (i)</i>             |
| 15:30 | 224 | Optical detection of magnon in bulk $\alpha$ -MnTe<br><i>Jan Dzian</i>  |
| 15:45 | 225 | Tuneable spin-wave dynamics in nanoscale YIG magnonic crystals<br><i>Khrystyna Levchenko</i>                      |
| 16:00 |     | <b>END</b>  |

Friday, 22.08.2025, Room 33

| Time  | ID  | <b>KOND XV: CORRELATED MATERIALS II</b><br><i>Chair: Peter Nemes-Incze, HUN-REN Centre for Energy Research, Budapest</i>            |
|-------|-----|---|
| 11:00 | 231 | THz dynamics of quantum materials, also under pressure<br><i>Elsa Abreu (k)</i>   |
| 11:30 | 232 | Influence of magnetic field on the band structure of $\text{EuCd}_2\text{X}_2$ (X=P, As, Sb)<br><i>Serena Nasrallah</i>             |
| 11:45 | 233 | Soft x-ray photoelectron spectroscopy of $\text{Mn}_2\text{P}$<br><i>Yuki Utsumi Boucher</i>  |
| 12:00 | 234 | Time-resolved terahertz spectroscopy in high electric and magnetic fields<br><i>Bence Szász</i>                                     |
| 12:15 | 235 | Competing Valence-Bond-Solid Ground States of the Spin-1/2 Heisenberg Antiferromagnet on the Star Lattice<br><i>Pratyay Ghosh</i>   |
| 12:30 |     | <b>Poster Awards and Closing Ceremony</b>   |
| 12:45 |     | <b>Lunch</b>  |
|       |     | <b>KOND XVI: CORRELATED MATERIALS III</b><br><i>Chair: Denis Sunko, University of Zagreb</i>  |
| 14:00 | 241 | Symmetry and Complexity in Condensed Matter: Two Nonsymmorphic Tales<br><i>Aline Ramires (k)</i>                                    |
| 14:30 | 242 | Do we really need symmetry functions to understand micro-structure and phase transitions?<br><i>Carina Karner</i>                   |
| 14:45 | 243 | Order Informed Sampling in the Physical Sciences<br><i>Christian Binder</i>   |
| 15:00 | 244 | Electronic structure and superconductivity in nickelates and cuprates: insights from DMFT and D <sup>1</sup> A<br><i>Eric Jacob</i> |
| 15:15 | 245 | Controlling Plasmonic Catalysis via Strong Coupling with Electromagnetic Resonators<br><i>Christian Schäfer</i>                     |
|       | 246 | <i>→ moved to 164</i>   |
| 15:30 | 247 | Analytical treatment of $\pi$ -ton vertex corrections to optical conductivity<br><i>Juraj Kršnik</i>                                |
| 15:45 |     | <b>END</b>  |

Friday, 22.08.2025, Room Erika Weinzierl Saal

| Time  | ID  | <b>KOND XVII: FUNCTIONAL MATERIALS</b><br><i>Chair: Tomáš Bzdušek, Universität Zürich</i>   |
|-------|-----|---|
| 14:00 | 251 | Photoinduced phase transitions into hidden states<br><i>Igor Vaskivskiy (k)</i>   |
| 14:30 | 252 | Topological Flat Bands for Metallic Thermoelectrics<br><i>Andrej Pustogow (i)</i>   |
| 15:00 | 253 | Insights into the flexibility of the DMOF-1 Metal-Organic Framework upon azobenzene isomerization revealed by terahertz (THz) and infrared (IR) spectroscopy<br><i>Peter Hartmann (i)</i> |
| 15:30 | 254 | Optical conductivity of layered topological semi-metal $\text{TaNiTe}_5$<br><i>Jakov Budić</i>  |
| 15:45 | 255 | Influence of Antisite Defects on Multiferroic Functionalities in $\text{LaFeO}_3$ Perovskite Oxides.<br><i>Souren Majani</i>  |
| 16:00 |     | <b>END</b>  |

| ID  | <b>KOND POSTER</b>  |
|-----|---|
| 261 | Spontaneous voltage and persistent electric current from rectification of ambient electronic noise in cuprate/manganite interface<br><i>Subhrangsu Sarkar</i>                                 |
| 262 | Bridging Quantum Scars and Classical Localization: Spin Transport Anomalies in Low-Dimensional Systems<br><i>Satar Almazyoudawi</i>   |
| 263 | Generalized Josephson effect with arbitrary periodicity in quantum magnets.<br><i>Anshuman Tripathi</i>   |
| 264 | Static and Dynamic Magnetic Response of van der Waals Antiferromagnets<br><i>Ignac Fejes</i>  |
| 265 | <i>cancelled</i>  |
| 266 | Extended s-wave pairing from an emergent Feshbach resonance in bilayer nickelate superconductors<br><i>Pietro Borchia</i>   |
| 267 | Strain engineering of the magnetic exchange interactions in a $\text{CrI}_3$ monolayer<br><i>Jyothi Bhasu Anjali</i>  |
| 268 | Non-trivial Berry phase and anomalous Hall effect in layered $\text{ZrTe}_5$<br><i>Sophia Hollweger</i>   |
| 269 | Magnetic field-induced phases in $\text{BoNO}$ : an extensive NMR study of a model $S=1$ Haldane chain<br><i>Ivan Jakovac</i>   |
| 270 | Ultrafast Vortex Velocities in Superconducting $\text{MgB}_2$ Films<br><i>Clemens Schmid</i>  |
| 271 | Impact of ambient hydrocarbon contamination on scanning tunneling microscopy and spectroscopy of graphite<br><i>György Kálmán</i>   |
| 272 | $\Gamma$ -point magnons in antiferromagnetic $\alpha$ -MnTe<br><i>Stáňa Tázlarú</i>   |
| 273 | Colossal magnetoresistance effect and spin-dependent variable-range hopping in the charge ordered phase of overdoped $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ manganites<br><i>Emil Tafrá</i> |
| 274 | Optical Properties of Metallic Carbon Nanotubes: New Insights for Plasmonic Predictions<br><i>Domitille Baux Remini</i>   |
| 275 | Atomic-resolution investigation of 2D hematene<br><i>Jana Dzibelova</i>   |
| 276 | Field-dependent Magneto-optical Kerr Effect Spectra of $\text{EuCd}_2\text{As}_2$<br><i>Michal Hubert</i>   |

|     |  |
|-----|--|
| 277 | <b>Wide-Field MOKE Imaging of Domains in Altermagnetic MnTe</b><br><i>Filip Chudoba</i>  |
| 278 | <b>Magneto-optical detection of malaria in rotating magnetic field</b><br><i>Gergely Babcsán</i>   |
| 279 | <b>Modification of the electronic properties of MBE-grown NbSe<sub>2</sub> on oxide substrates</b><br><i>Ryan Thompson</i>   |
| 280 | <b>Identifying Fulde–Ferrell–Larkin–Ovchinnikov Superconductivity via Magnetotropic Response</b><br><i>Gulnaz Rakhmanova</i>   |
| 281 | <b>Elimination of substrate-induced ferromagnetic resonance linewidth broadening in the epitaxial system YIG–GGG by microstructuring</b><br><i>David Schmoll</i>                       |
| 282 | <b>Investigating Strain-Dependent Magnetoresistance and Metal-Insulator Transition in LCMO Films at Cryogenic Temperatures Using Near-Field Techniques</b><br><i>Giuliano Esposito</i> |
| 283 | <b>Broken Symmetries and Ordered Electrons: Probing Charge Order in CsV<sub>3</sub>Sb<sub>5</sub> Using Ultrasonic Pulse-echo Techniques.</b><br><i>German Cancino</i>                 |
| 284 | <b>Mapping stacking domains in rhombohedral graphite via conductive atomic force microscopy</b><br><i>Dóra Varga</i>   |
| 285 | <b>Time-Domain THz Mueller Matrix Ellipsometry on Low Symmetry Crystals</b><br><i>Premysl Marsik</i>   |
| 286 | <b>Machine Learning for Quantum Many-Body Physics: Efficient Representation of Vertex Functions</b><br><i>Sebastian Hepp</i>   |
| 287 | <b>Temperature dependence of the DC conductivity in anisotropic 3D Dirac semimetals</b><br><i>Patrik Papac</i>   |
| 288 | <b>Kohler's Rule in the Strange Metal Regime of Cuprates</b><br><i>Luka Aksamovic</i>  |
| 289 | <b>Progress in the studies of electronic and magnetic properties of layered MPX<sub>3</sub> materials (M: transition metal, X: chalcogen)</b><br><i>Yuriy Dedkov</i>                   |
| 290 | <b>Proximity effects in the graphene-Co<sub>3</sub>Sn<sub>2</sub>S<sub>2</sub> interface</b><br><i>Elena Voloshina</i>   |
| 291 | <b>Electronic correlation and magnetic interactions in PrNiO<sub>2</sub></b><br><i>Xunyang Hong</i>  |
| 292 | <b>Unconventional magnetic states in geometrically frustrated rare-earth heptatantalates</b><br><i>Kevin Jaksetić</i>  |
| 293 | <b>Magnetism of doped Murunskite</b><br><i>Jana Mužević</i>  |
| 294 | <b>Multiferroic Behavior in BiFeO<sub>3</sub> and Bi<sub>1-x</sub>Ho<sub>x</sub>FeO<sub>3</sub>: Synergy Between Theory and Experiment</b><br><i>Maria Čebela</i>                      |
| 295 | <b>Hidden covalent insulator and spin excitations in SrRu<sub>2</sub>O<sub>6</sub></b><br><i>Diana Csontosova</i>  |
| 296 | <b>Control of antiferromagnetic domains in La<sub>0.55</sub>Sr<sub>0.45</sub>MnO<sub>3</sub> ultrathin films</b><br><i>Carlos Antonio Fernandes Vaz</i>                                |

## Nuclear, Particle and Astrophysics (FAKT - TASK)

THIS SESSION HAS BEEN ORGANISED IN COLLABORATION WITH  
**CHIPP.**

*Tuesday, 19.08.2025, Room Großer Festsaal*

| Time  | ID             | <b>FAKT - TASK I: EDM</b><br><i>Chair: Victoria Kletzl-Teuffenbach, Österreichische Akademie der Wissenschaften</i>            |
|-------|----------------|--|
| 14:00 | 301            | <b>A Search for the Electric Dipole Moment of the Muon using the Frozen Spin Technique</b><br><i>Johannes Alexander Jaeger</i> |
| 14:15 | 302            | <b>Introducing the n2EDM experiment</b><br><i>Gian Luca Caratsch</i>   |
| 14:30 | 303            | <b>An optically pumped magnetometer array used for a fundamental physics experiment</b><br><i>Lea Segner</i>                   |
| 14:45 | 304            | <b>A <sup>199</sup>Hg Co-Magnetometer System for the n2EDM Experiment at PSI</b><br><i>Nikolaus von Schickh</i>                |
| 15:00 | 305            | <b>Development of the superconducting injection channels for the muEDM experiment at PSI</b><br><i>Pranas Juknevičius</i>      |
| 15:15 | 306            | <b>Deep-learning event reconstruction for the Cherenkov Telescope Array Observatory with CTLearn</b><br><i>Bastien Lacave</i>  |
| 15:30 |                | <b>Coffee Break</b>  |
|       |                | <b>FAKT - TASK II: EXOTIC ATOMS I</b><br><i>Chair: Joachim Bosina, TU Wien</i>   |
|       | <del>311</del> | <i>cancelled</i>   |
| 16:00 | 312            | <b>Muonic atom spectroscopy of U-238 for the extraction of nuclear properties</b><br><i>Anastasia Doinaki</i>                  |
| 16:15 | 313            | <b>On the formation of molecules containing positronium</b><br><i>Alina Weiser</i>   |
| 16:30 | 314            | <b>GRASIAN: Towards the first demonstration of gravitational quantum states of atoms.</b><br><i>Carina Killian</i>             |
| 16:45 | 315            | <b>Antihydrogen formation in the ASACUSA-Cusp experiment</b><br><i>Marcus Bumbar</i>   |
| 17:00 | 316            | <b>From a Rabi- to a Ramsey-type apparatus for anti-hydrogen hyperfine spectroscopy</b><br><i>Martin Simon</i>                 |
| 17:15 | 317            | <b>LEMING - Cold muonium for atomic physics and gravity</b><br><i>Francesco Lancellotti</i>                                    |
|       | <del>318</del> | <i>cancelled</i>   |
| 17:30 |                | <b>END</b>   |
|       |                | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>  |
| 19:00 |                | <b>Public Lecture</b>  |

*Tuesday, 19.08.2025, Room Senatssaal*

| Time  | ID  | <b>FAKT - TASK III: NEUTRINO</b><br><i>Chair: Silke Möbius, Universität Bern</i> |
|-------|-----|--|
| 14:00 | 321 | <b>Status of DUNE Near Detector ND-LAr</b><br><i>Saba Parsa</i>                  |
| 14:15 | 322 | <b>The liquid argon TPC at the DUNE Near Detector</b><br><i>Jan Kunzmann</i>     |

|       |     |   |
|-------|-----|---|
| 14:30 | 323 | Upgrade detector for the neutrino oscillation experiment T2K experiment near site<br><i>Vedantha Kasturi</i>                |
| 14:45 | 324 | The neutrinoless double beta decay experiment LEGEND<br><i>Gloria Senatore</i>  |
| 15:00 | 325 | Energy Reconstruction for LHC Neutrinos at FASER<br><i>Jeremy Atkinson</i>  |
| 15:15 | 326 | Status of the Coherent Elastic Neutrino-Nucleus Scattering experiment NUCLEUS<br><i>Jens Burkhart</i>                       |
| 15:30 |     | <b>Coffee Break</b>   |
|       |     | <b>FAKT - TASK IV: DARK MATTER</b><br><i>Chair: Gernot Eichmann, Universität Graz</i>                                       |
| 16:00 | 331 | Superconducting quantum bits as quasiparticle sensors<br><i>Felix Wagner (i)</i>  |
| 16:15 | 332 | Dark state pair-production in underground accelerators and their detection<br><i>Maximilian Fahrecker</i>                   |
| 16:30 | 333 | Sensitivity of Dark Matter and Neutrino Experiments for Searches of Cosmic-Ray Boosted Dark Matter<br><i>Richard Diurba</i> |
| 16:45 | 334 | Towards a theory of dissipative Dark Matter I: the Born limit<br><i>Garance Lankester-Broche</i>                            |
| 17:00 | 335 | Recent results of the XENONnT Dark Matter experiment<br><i>Luisa Höttsch</i>  |
| 17:15 | 336 | COSINUS: Searching for Dark Matter with Cryogenic NaI Detectors<br><i>Mariano Cababie</i>                                   |
| 17:30 | 337 | Status of the CRESST-III Experiment<br><i>Dominik Fuchs</i>   |
| 17:45 | 338 | Search for TeV Heavy Neutral Leptons with the ATLAS experiment<br><i>Lucas Mollier</i>                                      |
| 18:00 | 339 | Xenoscope: a vertical demonstrator for the next-generation liquid xenon observatory<br><i>Sana Ouahada</i>                  |
| 18:15 |     | <b>END</b>  |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>   |
| 19:00 |     | <b>Public Lecture</b>   |

Thursday, 21.08.2025, Room HS 30

|       |     |  |
|-------|-----|--|
|       |     | <b>FAKT - TASK V: THEORY I</b><br><i>Chair: Florian Reindl, TU Wien</i>  |
| 11:00 | 341 | Rapidity-Dependent Spin Decomposition of the Nucleon<br><i>Florian Hechenberger (i)</i>  |
| 11:15 | 342 | Tensor meson contributions to the muon g-2 from holographic models of QCD<br><i>Jonas Mager</i>                                    |
| 11:30 | 343 | Dispersive evaluation of spin-2 resonances in the Hadronic Light-by-Light contribution to the muon g-2<br><i>Emilis Kaziukenas</i> |
| 11:45 | 344 | LACTEL: a cosmic-ray detector in the Lac Léman<br><i>Ettore Zaffaroni</i>  |
| 12:00 | 345 | Search for dark matter with CTAO<br><i>Seraphine Marti</i>   |
| 12:15 | 346 | Latest results from the DAMPE experiment<br><i>Manbing Li</i>  |
| 12:30 |     | <b>Lunch</b>   |

Thursday, 21.08.2025, Room Großer Festsaal

|       |     |  |
|-------|-----|--|
|       |     | <b>FAKT - TASK VI: DETECTORS</b><br><i>Chair: Charlotte Cavanagh, CERN</i>   |
| 14:00 | 351 | Validation of the design of the TEPX system for the Phase-2 CMS Inner Tracker<br><i>Filip Bilandzija</i>                                 |
| 14:15 | 352 | The Calibr-A-Ton: a novel method for calorimeter energy calibration<br><i>Jona Motta</i>   |
| 14:30 | 353 | The high-speed opto-electrical conversion system for the readout of the ATLAS ITk Pixel upgrade<br><i>Silke Möbius</i>                   |
| 14:45 | 354 | The Mu3e Vertex Detector: From Module Qualification to First Beam<br><i>Thomas Christian Senger</i>                                      |
| 15:00 | 355 | Calibration of the LHCb magnetic field map<br><i>Aravindhan Venkateswaran</i>  |
| 15:15 | 356 | qBounce: a Ramsey-type Gravitational Resonance spectrometer – Results and Outlook<br><i>Joachim Bosina</i>                               |
| 15:30 |     | <b>Coffee Break</b>  |
|       |     | <b>FAKT - TASK VII: THEORY II</b><br><i>Chair: Florian Hechenberger, Stony Brook University</i>  |
| 16:00 | 361 | Exotic hadron spectroscopy with functional methods<br><i>Gernot Eichmann</i>   |
| 16:15 | 362 | Sampling lattice field theories with diffusion models<br><i>Thomas Ranner</i>  |
| 16:30 | 363 | The (3+1)D dilute Glasma in the early stage of relativistic heavy-ion collisions<br><i>Kayran Schmidt</i>                                |
| 16:45 | 364 | Jet energy loss in the nonequilibrium quark-gluon plasma during the initial stages in heavy-ion collisions<br><i>Florian Lindenbauer</i> |
| 17:00 | 365 | Automated calculation of non-global soft functions<br><i>Rudi Rahn</i>   |
| 17:15 | 366 | Determination of the strong coupling from electron-positron event shapes<br><i>Andre Hoang</i>   |
| 17:30 | 367 | Geons as gravity balls<br><i>Axel Maas</i>   |
| 17:45 | 368 | Quantum gravity in static spherically symmetric spacetime<br><i>Ali Riahinia</i>   |
| 18:00 |     | <b>END</b>   |
|       |     | <b>Transfer to Dinner</b>  |
| 19:00 |     | <b>Conference Dinner</b>   |

Thursday, 21.08.2025, Room Senatssaal

|       |                |   |
|-------|----------------|---|
|       |                | <b>FAKT - TASK VIII: HIGH ENERGY I, HIGGS</b><br><i>Chair: Axel Maas, Universität Graz</i>  |
| 11:00 | 371            | Search for Higgs boson pairs production in the bb $\tau\tau$ final state with the CMS detector using LHC Run3 data<br><i>Jona Motta</i> |
| 11:15 | 372            | Search for pair production of Higgs bosons in the bbbb final state with the ATLAS detector<br><i>Una Alberti</i>                        |
| 11:30 | 373            | Search for New Physics in the ttbar+MET final state with the ATLAS experiment<br><i>Silke Möbius</i>                                    |
|       | <del>374</del> | <i>cancelled</i>  |

|       |     |   |
|-------|-----|---|
| 11:45 | 375 | <b>Blueprint to a Numerical Collider</b><br><i>Valentin Hirschi</i>   |
| 12:00 | 376 | <b>Search for ggHbb in the resolved final state with the CMS experiment</b><br><i>Giovanni Celotto</i>  |
| 12:15 | 377 | <b>Higgs Beyond the Standard Model: Probing Bosonic Resonant Decays to Hadronic <math>VV\tau\tau</math> at CMS</b><br><i>Fanqiang Meng</i>  |
| 12:30 |     | <b>Lunch</b>  |
|       |     | <b>FAKT - TASK IX: HIGH ENERGY II + R&amp;D</b><br><i>Chair: Felix Wagner, ETH Zürich</i>   |
| 14:00 | 381 | <b>Reconstructing Missing Vertices in Tauonic B decays at LHCb - from <math>B \rightarrow \tau\nu</math> to <math>B_s \rightarrow \tau\tau</math></b><br><i>Rita De Sousa Ataíde Da Silva</i> |
| 14:15 | 382 | <b>Technology challenges to realize future HEP experiments: From ECFA Detector Roadmap to DRD collaborations</b><br><i>Thomas Bergauer</i>  |
| 14:30 | 383 | <b>Geometric and Optical Characterization of Double-Row Microlens SiPMs for LHCb SciFi Tracker Upgrade II</b><br><i>Jou An Chen</i>   |
| 14:45 | 384 | <b>Silicon Carbide Radiation Detector R&amp;D for High Energy Physics and Beyond</b><br><i>Sebastian Onder</i>  |
| 15:00 | 385 | <b>Nonfactorizable Effects in Semileptonic Top Quark Decays</b><br><i>Bernd Carmann</i>   |
| 15:15 | 386 | <b>Measurement of <math>BR(B_{(s)} \rightarrow K_s K_s)</math> with Run 2 LHCb data</b><br><i>Kerim Guseinov</i>  |
| 15:30 |     | <b>Coffee Break</b>   |
|       |     | <b>FAKT - TASK X: FLAVOUR PHYSICS</b><br><i>Chair: Martin Hoferichter, Universität Bern</i>   |
| 16:00 | 391 | <b>Search for violation of leptonic universality in Semileptonic Hyperon Decays in LHCb</b><br><i>Alexandre Brea Rodríguez</i>  |
| 16:15 | 392 | <b>Study of the weakly decaying charmed baryons <math>X_c^+</math> and <math>X_c^0</math> with 89/fb of Belle II data</b><br><i>Nikolaus Schneider</i>  |
| 16:30 | 393 | <b>Observation of the <math>K^+ \rightarrow \pi^+ + \nu\bar{\nu}</math> decay at the NA62 experiment</b><br><i>Xiafei Chang</i>   |
| 16:45 | 394 | <b>Measurement of the branching fraction ratio <math>\mathcal{B}(B^0 \rightarrow \omega K\pi)/\mathcal{B}(B^0 \rightarrow J/\psi K\pi)</math> at LHCb</b><br><i>Pasquale Andreola</i>         |
| 17:00 | 395 | <b>Measurement of <math>\gamma_{CP}</math> using 2024 Run 3 data at LHCb</b><br><i>Dimitrios Kaminaris</i>  |
| 17:15 | 396 | <b>Search for the <math>B^+ \rightarrow \mu^+ \mu^- \mu^+ \nu</math> decay at LHCb</b><br><i>Pierre Mayencourt</i>  |
| 17:30 | 397 | <b>Search for the rare <math>K_s \rightarrow \mu^+ \mu^-</math> decay using Run 3 data at LHCb</b><br><i>Luis Miguel Garcia Martin</i>  |
| 17:45 | 398 | <b>Search for the <math>B_s^0 \rightarrow \mu^+ \mu^- \gamma</math> decay with photon conversions.</b><br><i>Raphael van Laak</i>   |
| 18:00 |     | <b>END</b>  |
|       |     | <b>Transfer to Dinner</b>   |
| 19:00 |     | <b>Conference Dinner</b>  |

Friday, 22.08.2025, Room Senatssaal

| Time  | ID  | <b>FAKT - TASK XI: EXOTIC ATOMS II</b><br><i>Chair: Alexandre Brea Rodríguez, EPF Lausanne</i>  |
|-------|-----|---|
| 11:00 | 401 | <b>The time-resolved Migdal Effect</b><br><i>Stefan Nellen Mondragón</i>  |
| 11:15 | 402 | <b>LEMING - towards muonium interferometry</b><br><i>Robert Waddy</i>   |
| 11:30 | 403 | <b>Development of new superfluid helium-based muonium sources for the LEMING experiment</b><br><i>Elizaveta Dourassova</i>  |
| 11:45 | 404 | <b>Antiproton-Nucleus Annihilations at Low Energies</b><br><i>Viktoria Kraxberger</i>   |
| 12:00 | 405 | <b>Development and future prospects of a gamma-spectroscopy array for measurement of (n,xng) cross-section measurements at CERN n<sub>TOF</sub></b><br><i>Michael Bacak</i> |
| 12:15 | 406 | <b>Geant4 Characterization of the High Altitude Scintillator Detector AMORE</b><br><i>Sergey K. Ermakov</i>   |
| 12:30 |     | <b>Poster Awards and Closing Ceremony</b>   |
| 12:45 |     | <b>Lunch</b>  |
|       |     | <b>FAKT - TASK XII: HIGH ENERGY III</b><br><i>Chair: Jona Motta, Universität Zürich</i>   |
| 14:00 | 411 | <b>Neutrino measurements with the FASER electronic detector at the LHC</b><br><i>Charlotte Cavanagh</i>   |
|       | 412 | <i>→ moved to 377</i>   |
| 14:15 | 413 | <b>FASERCal: Probing High-Energy Neutrinos at FASER in the HL-LHC Era</b><br><i>Anna Mascellani</i>   |
| 14:30 | 414 | <b>Search for Neutrino Interaction Signature on SND@LHC with Machine Learning</b><br><i>Zhibin Yang</i>   |
| 14:45 | 415 | <b>Charmed Baryon Physics at Belle II and Measurement of <math>\Xi_c</math> Branching Fractions</b><br><i>Cristhian Ricaurte</i>  |
| 15:00 | 416 | <b>Proton irradiation of a SciFi module to the dose profile expected in LHCb Upgrade 2</b><br><i>Gauri Napoletano</i>   |
| 15:15 |     | <b>END</b>  |

| ID  | <b>FAKT - TASK POSTER</b>   |
|-----|---|
| 431 | <b>SiPM development for LHCb SciFi Upgrade II</b><br><i>Federico Ronchetti</i>  |
| 432 | <b>Study of Signal-to-Background Discrimination in the muEDM experiment using Geant4</b><br><i>David Höhl</i>   |
| 433 | <b>Measurement of the differential branching fraction of <math>B^+ \rightarrow K^+ \pi^+ \pi^- \mu^+ \mu^-</math></b><br><i>Anni Kauniskangas</i>                         |
| 434 | <b>Low energy antimatter at the Stefan Meyer Institute</b><br><i>Ross Sheldon</i>   |
| 435 | <b>The Spectroscopy Beamline of the ASACUSA Antihydrogen Experiment</b><br><i>Matti Cerwenka</i>  |
| 436 | <b>Cesium Magnetometry for the n2EDM Experiment</b><br><i>Luz Sanchez-Real Zielniewicz</i>  |
| 437 | <b>Study of Exclusive Dimuon Photoproduction in Ultraperipheral Pb–Pb Collisions at <math>\sqrt{s_{nn}} = 5.02</math> TeV with the CMS Detector</b><br><i>Eslam Shokr</i> |
| 438 | <b>Machine learning a fixed-point action for the O(3) non-linear sigma-model</b><br><i>Liane Backfried</i>  |

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|-----|---|
| 439 | <b>Cryogenic tracking detectors for the LEMING experiment</b><br><i>Rebecca Gartner</i>   |
| 440 | <b>Decay of the Vortex neutron</b><br><i>Rahul Singh</i>                                  |
| 441 | <b>A visualization of the relativistic Terrell-Penrose effect</b><br><i>Victoria Helm</i> |

### Gravitational Waves

Thursday, 21.08.2025, Room Erika Weinzierl Saal

| Time  | ID  | GRAVITATIONAL WAVES I<br><i>Chair: Philippe Jetzer, Universität Zürich</i>  |
|-------|-----|---|
| 14:00 | 461 | <b>Overview of Austrian and Swiss GW communities</b><br><i>Gianluca Inguglia, Steven Schramm</i>  |
| 14:20 | 462 | <b>Challenges and opportunities of the Einstein Telescope</b><br><i>Ulyana Dupletska</i>  |
| 14:40 | 463 | <b>Preparing for computing at the Einstein Telescope</b><br><i>Steven Schramm</i>   |
| 15:00 | 464 | <b>Anomaly Detection of Gravitational Waves at the Einstein Telescope</b><br><i>Gianluca Inguglia</i>   |
| 15:20 |     |   |
| 15:30 |     | <b>Coffee Break</b>   |
|       |     | GRAVITATIONAL WAVES II<br><i>Chair: Gianluca Inguglia, ÖAW</i>  |
|       | 465 | <i>cancelled</i>  |
| 16:00 | 466 | <b>Identification and parameter estimation of gravitational-wave signals from extreme-mass-ratio inspirals with LISA</b><br><i>Stefan Strub</i>                   |
| 16:20 | 467 | <b>Deep source separation meets deep source inference: Toward a unified learning pipeline for high-dimensional gravitational-wave data</b><br><i>Niklas Houba</i> |
| 16:40 | 468 | <b>Exploring nanoHz gravitational waves with pulsar timing arrays</b><br><i>Michele Vallisneri</i>  |
| 17:00 |     | <b>END</b>  |
|       |     | <b>Transfer to Dinner</b>   |
| 19:30 |     | <b>Conference Dinner</b>  |

### Accelerator Science and Technology

Tuesday, 19.08.2025, Room Erika Weinzierl Saal

| Time  | ID  | ACCELERATOR SCIENCE AND TECHNOLOGY<br><i>Chair: Mike Seidel, PSI Villigen</i>   |
|-------|-----|---|
| 16:00 | 481 | <b>Superconducting-Magnet R&amp;D for the Future Circular Collider at the PSI MagDev Laboratory</b><br><i>Bernhard Auchmann</i>   |
| 16:15 | 482 | <b>Towards multi-scale modelling of Nb<sub>3</sub>Sn cable for accelerator magnets</b><br><i>Joep Van den Eijnden</i>             |
| 16:30 | 483 | <b>Quench Protection based on Smart Insulation for the Final Cooling Solenoid of the Muon Collider</b><br><i>Matteo Crescenti</i> |
| 16:45 | 484 | <b>Update on Beam Halo Removal Studies for HL-LHC</b><br><i>Milica Rakic</i>  |

|       |     |   |
|-------|-----|---|
| 17:00 | 485 | <b>Accelerating Mixed Ion Beams for Treatment Monitoring Research</b><br><i>Matthias Kausel</i>                   |
|       | 486 | <i>cancelled</i>  |
| 17:15 | 487 | <b>The Upgrade of the Swiss Light Source and Characterization of its Beam Optics</b><br><i>Jesus Avila Pulido</i> |
| 17:30 | 488 | <b>Implementation of the Synchrotron Radiation Integrals in Xsuite</b><br><i>Simon Buijsman</i>                   |
| 17:45 | 489 | <b>Energy-efficient ERL-based accelerators from a beam dynamics perspective</b><br><i>Lode Vanhecke</i>           |
| 18:00 |     | <b>END</b>  |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>   |
| 19:00 |     | <b>Public Lecture</b>   |

### Energy, Sustainability and Environment

Tuesday, 19.08.2025, Room HS 30

| Time  | ID  | ENERGY, SUSTAINABILITY AND ENVIRONMENT<br><i>Chair: Robert Hauser, FH Kärnten; Christoph Reichl, AIT</i>   |
|-------|-----|--|
| 16:00 | 501 | <b>Nature-Inspired Nanopores for Osmotic Energy Conversion</b><br><i>Yunfei Teng (i)</i>   |
| 16:30 | 502 | <b>The Vienna Environmental Research Accelerator (VERA) for applications in Earth and Environmental sciences</b><br><i>Karin Hain</i>                |
| 16:45 | 503 | <b>High-Power, Low-Noise Mid-Infrared Optical Frequency Combs for Precision Spectroscopy</b><br><i>Vito Fabian Pecile</i>                            |
| 17:00 | 504 | <b>Data-Driven Fault Detection in PV Plants Based on IV Curve Analysis and Artificially Generated Fault Scenarios</b><br><i>Felix Korbelius</i>      |
| 17:15 | 505 | <b>Enhancing Heat Pump Installation Through Frequency-Based Acoustic Directivity Information: An Open Database Initiative</b><br><i>Luisa Stöckl</i> |
| 17:30 | 506 | <b>Decentralized heat pump solutions and their safety concepts for natural refrigerants in multi-family houses</b><br><i>Stephan Preisinger</i>      |
| 17:45 | 507 | <b>IEA HPT Annex 61 – Integration of Heat Pumps in Positive Energy Districts</b><br><i>Christoph Reichl</i>  |
| 18:00 |     | <b>END</b>   |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>  |
| 19:00 |     | <b>Public Lecture</b>  |

| ID  | ENERGY, SUSTAINABILITY AND ENVIRONMENT POSTER   |
|-----|---|
| 521 | <b>Automatic focusing system for laser thermal annealing set-up: toward effective wafer back contact annealing.</b><br><i>Martin Buessler</i>       |
| 522 | → <i>moved to 587</i>   |
| 523 | <b>Extended aerosol optical depth (AOD) time series analysis in an alpine valley: a comparative study from 2007 to 2023</b><br><i>Jochen Wagner</i> |

|     |   |
|-----|---|
| 524 | IEA HPT Annex 63 - Placement Impact on Heat Pump Acoustics - Overview and Austrias Contribution to the Network<br><i>Christoph Reichl</i> |
|-----|---|

## Applied Physics

Tuesday, 19.08.2025, Room Elise Richter Saal

| Time  | ID  | APPLIED PHYSICS I<br><i>Chair: Fabio Avino, EPF Lausanne</i>  |
|-------|-----|---|
| 14:00 | 551 | <sup>44</sup> Ti – A new Trace Isotope for Astrophysics<br><i>David Krebs</i>   |
| 14:15 | 552 | M <sup>2</sup> as a Quantitative Measure of Beam Quality<br><i>Filipp Lausch</i>  |
| 14:30 | 553 | Production and characterization of an isotopic Np spike for mass spectrometry<br><i>Karin Hain</i>  |
| 14:45 | 554 | Dark Field MOKE as a laboratory- based characterization tool for complex 3D magnetic nanostructures<br><i>Jakub Jurczyk</i>   |
| 15:00 | 555 | Ultrashort Picosecond Ion Pulse Generation by Laser-Stimulated Desorption<br><i>Alexander Redl</i>  |
| 15:15 | 556 | Femtosecond two-photon-absorption laser-induced-fluorescence in fusion-relevant hydrogen plasmas<br><i>Michael Goddijn</i>  |
| 15:30 |     | <b>Coffee Break</b>   |
|       |     | APPLIED PHYSICS II<br><i>Chair: Fabio Avino, EPF Lausanne</i>   |
| 16:00 | 561 | Nanoscaled Spin-Wave Frequency Selective Limiter (FSL) and Delay Line for 5G Technology<br><i>Kristýna Davidková</i>  |
| 16:15 | 562 | Novel InAs/AlSb interband detectors<br><i>Stefania Isceri</i>   |
| 16:30 | 563 | Wavefront correction over large fields of view via cone tomography<br><i>Juan David Munoz Bolanos</i>   |
| 16:45 | 564 | Towards Monte Carlo based Full Spectrum Modeling of Airborne Gamma-Ray Spectrometry Systems<br><i>David Breitenmoser (i)</i>  |
| 17:15 | 565 | ILIAMS-assisted accelerator mass spectrometry measurements of long-lived radionuclides produced in nuclear fusion environment<br><i>Carlos Vivo-Vilches</i>               |
| 17:30 | 566 | Impact of divertor leg length on plasma-wall interaction in the TCV boundary plasma using self-consistent, global turbulence simulations<br><i>Sergio Garcia Herreros</i> |
| 17:45 | 567 | Design of a Fast Reciprocating Diagnostic to Characterize the Boundary Plasma in the Tokamak à Configuration Variable<br><i>Alysée Khan</i>                               |
| 18:00 | 568 | Trajectoids: Rolling stones downhill.<br><i>Jean-Pierre Eckmann</i>   |
| 18:15 |     | <b>END</b>  |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>   |
| 19:00 |     | <b>Public Lecture</b>   |

| ID  | APPLIED PHYSICS POSTER   |
|-----|--|
| 581 | Influence of impurity injection location on a tokamak plasma performance<br><i>Riccardo Morgan</i> |

|     |   |
|-----|---|
| 582 | Interpretation of Neutral Pressure Measurements and Design of a Novel Pressure Diagnostic Array for the TCV Tokamak through Monte Carlo Modelling with MolFlow<br><i>Benjamin Brown</i> |
| 583 | Design of 3D Printed Tips for Advanced Magnetic Force Microscopy<br><i>Dominik Schramm</i>  |
| 584 | Action Spectroscopy of He-Tagged, Anionic Coinage Metal Clusters<br><i>Martin Schmidt</i>   |
| 585 | Development of a quasi-optical high-magnetic-field millimeter-wave spectrometer<br><i>Levente Hegyessy</i>  |
| 586 | Updates on CREScent: High-Precision Electron Spectroscopy using Cyclotron Radiation Emissions<br><i>Alberto Jose Saavedra Garcia</i>  |
| 587 | Upgrade of the proton induced x-ray emission setup at the Vienna Environmental Research Accelerator (VERA)<br><i>Leopold Unterweger</i>   |

## Atomic Physics and Quantum Optics

Thursday, 21.08.2025, Room Elise Richter Saal

| Time  | ID             | ATOMIC PHYSICS AND QUANTUM OPTICS I<br><i>Chair: Helmut Ritsch, Universität Innsbruck</i>                              |
|-------|----------------|--|
| 14:00 | 601            | Low Temperature Quantum Sensing with Single Nitrogen-Vacancy Centers in Diamond<br><i>Jodok Happacher (i)</i>          |
| 14:30 | 602            | Quantum synchronization of twin limit-cycle oscillators<br><i>Tobias Kehrer</i>  |
| 14:45 | 603            | Rapid and Robust Hyperfine Qudit Gates in Trapped Neutral Atoms<br><i>Johannes Krondorfer</i>                          |
| 15:00 | 604            | Detection of Spin System Dynamics in Transmission Electron Microscope<br><i>Antonin Jaros</i>                          |
| 15:15 | 605            | Spectroscopy of Multilevel Disordered Atomic Clouds<br><i>Aleksei Konovalov</i>  |
| 15:30 |                | <b>Coffee Break</b>  |
|       |                | ATOMIC PHYSICS AND QUANTUM OPTICS II<br><i>Chair: Murad Abuzarli, Universität Wien</i>                                 |
| 16:00 | 611            | A minimalistic mirrorless laser<br><i>Helmut Ritsch</i>  |
| 16:30 | 612            | Progress in matter-wave interference of mesoscopic metal nanoparticles<br><i>Richard Ferstl</i>                        |
| 16:45 | 613            | Enhanced Polarization-Based Dark-Field Microscopy via Controlled Beam Decollimation<br><i>Fabian Maier</i>             |
| 17:00 | 614            | Source technologies for matter-wave interferometry with large metal clusters<br><i>Severin Sindelar</i>                |
| 17:15 | 615            | Driving Electron Spin Resonance with the Non-Radiative Near-Field of a Modulated Electron Beam<br><i>Matthias Kolb</i> |
| 17:30 | 616            | Impact of Intensity Fluctuations on the Second-Order Coherence of High-Harmonic Emission<br><i>Rafael T. Winkler</i>   |
| 17:45 | 617            | Deep ultraviolet laser light for cluster interferometry<br><i>Hannah Foltas</i>  |
|       | <del>618</del> | <del>cancelled</del>   |

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|-------|--|---------------------------|
| 18:00 |  | <b>END</b>                |
|       |  | <b>Transfer to Dinner</b> |
| 19:00 |  | <b>Conference Dinner</b>  |

Friday, 22.08.2025, Room Elise Richter Saal

| Time  | ID  | ATOMIC PHYSICS AND QUANTUM OPTICS III<br>Chair: Helmut Ritsch, Universität Innsbruck  |
|-------|-----|---|
| 14:00 | 621 | Electron-Photon Entanglement<br><i>Alexander Preimesberger</i>  |
| 14:15 | 622 | A cavity-microscope for micrometer-scale control of atom-photon interactions.<br><i>Ekaterina Fedotova</i>                          |
| 14:30 | 623 | Restoring thermalization in long-range quantum magnets with staggered magnetic fields<br><i>Lucas Winter</i>                        |
| 14:45 | 624 | Subradiance and superradiant long-range excitation transport among quantum emitter ensembles in a waveguide<br><i>Martin Fasser</i> |
| 15:00 | 625 | Hybrid Atom-Optomechanical System in the Quantum Regime<br><i>Gian-Luca Schmid</i>  |
| 15:15 | 626 | Self-organized momentum entanglement of atoms in a cavity<br><i>Ivor Kresic</i>   |
| 15:30 | 627 | Laser-Induced Quenching of the <sup>229</sup> Th nuclear clock isomer in CaF <sub>2</sub><br><i>Fabian Schaden</i>                  |
| 15:45 | 628 | Optical Coherent Feedback Control of a Mechanical Oscillator<br><i>Manel Bosch Aguilera</i>   |
| 16:00 |     | <b>END</b>  |

| ID  | ATOMIC PHYSICS AND QUANTUM OPTICS POSTER   |
|-----|--|
| 641 | Non-Hermitian Dynamics and Nonreciprocity of two Optically Coupled Nanoparticles<br><i>Murad Abuzarli</i>  |
| 642 | A quantum processor with non-local interactions and programmable connectivity<br><i>Johannes Schabbauer</i>  |
| 643 | Vibrationally Induced Molecular Magnetism<br><i>Johannes Krondorfer</i>  |
| 644 | Bistable and oscillating phases in ordered atomic arrays<br><i>Simon Panyella Pedersen</i>   |
| 645 | Towards quantum metrology with ultracold Cesium<br><i>Shreyas Gulhane</i>  |
| 646 | Free expansion of charged nanoparticles via electrostatic compensation<br><i>David Steiner</i>   |
| 647 | NQR Spectroscopy of <sup>229</sup> Th:CaF <sub>2</sub> crystals<br><i>Michael Bartokos</i>   |
| 648 | Towards two photon excitation of <sup>229</sup> Th nuclei in CaF <sub>2</sub> crystals<br><i>Ira Morawetz</i>  |
| 649 | Scalable high-bandwidth quantum network platform with a room temperature quantum memory and a quantum dot single photon source.<br><i>Suyash Gaikwad</i> |
| 650 | Collective cavity scattering by arrays of nanoparticles<br><i>Iurie Coroli</i>   |

## Coherent Optical Metrology Beyond Electric-Dipole-Allowed Transitions

THIS SESSION HAS BEEN ORGANISED IN COLLABORATION WITH THE SFB COMB.AT

Friday, 22.08.2025, Room Erika Weinzierl Saal

| Time  | ID  | COHERENT OPTICAL METROLOGY BEYOND ELECTRIC-DIPOLE-ALLOWED TRANSITIONS (COMB.AT)<br>Chair: Mikhail Lemeshko, Institute of Science and Technology Austria |
|-------|-----|---|
| 11:00 | 671 | Theory of angular momentum transfer from light to molecules<br><i>Mikhail Maslov</i>  |
| 11:15 | 672 | Optical Vortex-Induced Orbital Angular Momentum Transfer in Ro-Vibrational Spectroscopy<br><i>Georgios Koutentakis</i>                                  |
| 11:30 | 673 | The R-Index metric for evaluating OAM Content and mode purity in optical fields<br><i>Monika Bahl</i>   |
| 11:45 | 674 | Technical Developments of Multi-Pulse CPA for Nonlinear Spectroscopy<br><i>Vinzenz Stummer</i>  |
| 12:00 |     | <b>END</b>  |
| 12:30 |     | <b>Poster Awards and Closing Ceremony</b>   |

| ID  | COMB.AT POSTER   |
|-----|--|
| 681 | Shaped light in spectroscopy: how using light carrying OAM can enhance molecular spectroscopy<br><i>Timo Gaßen</i> |
| 682 | Towards the measurement of orbital angular momentum-enabled transitions in molecules<br><i>Tom Jungnickel</i>      |
| 683 | Bottom-up Analysis of Ro-Vibrational Helical Dichroism<br><i>Mateja Hrast</i>                                      |
| 684 | Coherent Optical Metrology Beyond Electric-Dipole-Allowed Transitions (COMB.AT)<br><i>Mikhail Lemeshko</i>         |

## Surfaces, Interfaces and Thin Films

Tuesday, 19.08.2025, Room HS 2

| Time  | ID  | SURFACES, INTERFACES AND THIN FILMS I<br>Chair: Anna Niggas, TU Wien   |
|-------|-----|--|
| 14:00 | 701 | Angle-Selective Infrared Reflection Absorption Spectroscopy on Oxide Surfaces<br><i>David Rath (i)</i>                               |
| 14:30 | 702 | Atomically-resolved surface structure: The prerequisite for understanding surfaces at the atomic level<br><i>Ulrike Diebold</i>      |
| 14:45 | 703 | Valence Band states of copper phthalocyanines on Ag(111): hybridised states or spin splitting?<br><i>Francesco Presel</i>            |
| 15:00 | 704 | The surface structure of Al <sub>2</sub> O <sub>3</sub> (0001)<br><i>Jan Balajka</i>   |
| 15:15 | 705 | Stabilization of the polar spinel MgAl <sub>2</sub> O <sub>4</sub> (001) surface by an Al-rich reconstruction<br><i>David Kugler</i> |
| 15:30 |     | <b>Coffee Break</b>  |

| Time  | ID  | <b>SURFACES, INTERFACES AND THIN FILMS II</b><br><i>Chair: Margareta Wagner, TU Wien</i>   |
|-------|-----|--|
| 16:00 | 711 | Charging, metalation and tautomerization of 2H-Phthalocyanine on ultrathin MgO films<br><i>Martin Sterrer</i>                              |
| 16:15 | 712 | Atomic-Scale Insights into Copper Cluster Growth on Tunable Magnesium Oxide Thin Films on Ag(100)<br><i>Maximilian Laßhofer</i>            |
| 16:30 | 713 | Atomic-scale surface chemistry of CaSiO <sub>3</sub> : interaction with water and carbon dioxide<br><i>Giada Franceschi</i>                |
| 16:45 | 714 | Characterization of CO <sub>2</sub> adsorption configurations on In <sub>2</sub> O <sub>3</sub> (111)<br><i>Sarah Tobisch</i>              |
| 17:00 | 715 | A Multi-Technique Approach to Characterize Responsive Nanostructures<br><i>Sumea Klokic</i>  |
| 17:15 | 716 | Surface Resonant Raman Scattering from Cu(110)<br><i>Sarang Bhasme</i>   |
| 17:30 | 717 | Multi-technique characterization and stabilization of single-atom catalysts: Rh <sub>1</sub> /TiO <sub>2</sub> (110)<br><i>Faith Lewis</i> |
| 17:45 | 718 | Thermal Stability of Platinum Adatoms on Fe <sub>2</sub> O <sub>3</sub> (1102)<br><i>Ali Rafsanjani-Abbasi</i>                             |
| 18:00 | 719 | A complex temperature-dependent Rashba spin splitting in ferroelectric topological crystalline insulator<br><i>Tetiana Zakusylo</i>        |
| 18:15 |     | <b>END</b>   |
|       |     | <b>Transfer to ÖAW</b><br><i>Doktor-Ignaz-Seipel-Platz 2, 1010 Wien</i>  |
| 19:00 |     | <b>Public Lecture</b>  |

Thursday, 21.08.2025, Room HS 2

| Time  | ID  | <b>SURFACES, INTERFACES AND THIN FILMS III</b><br><i>Chair: Martin Sterrer, Universität Graz</i>  |
|-------|-----|---|
| 11:00 | 721 | Angle-resolved ion-induced electron emission spectroscopy from surfaces<br><i>Anna Niggas (i)</i>   |
| 11:30 | 722 | Artificial Intelligence for Surface-Sensitive Materials Characterization: A Transformer for High-Throughput Quantitative X-ray Photoelectron Spectroscopy<br><i>Florian Simperl</i> |
| 11:45 | 723 | The Response of a High-Sensitivity Quartz Crystal Microbalance to MeV Ion Irradiation<br><i>Martina Fellinger</i>   |
| 12:00 | 724 | Oscillator-Model-Based Analysis of Ellipsometric Spectra in Combinatorial Unary and Binary Material Samples<br><i>Máté Podráczi</i>   |
| 12:15 |     |   |
| 12:30 |     | <b>Lunch</b>  |
|       |     | <b>SURFACES, INTERFACES AND THIN FILMS IV</b><br><i>Chair: Giada Franceschi, TU Wien</i>  |
| 14:00 | 731 | Revealing Solar Wind Erosion of Lunar Regolith through High-Precision Experiments and 3D Modeling<br><i>Johannes Brötzner</i>   |
| 14:15 | 732 | Quantification of nanoparticle adhesion using atomic force microscopy<br><i>Markus Kratzer</i>  |
| 14:30 | 733 | Ion adsorption at charged interfaces: visualization and quantification of ion-specific effects and water structure<br><i>Markus Valtiner</i>  |

|       |     |   |
|-------|-----|---|
| 14:45 | 734 | How is the hydrophobic force modified by an oscillation frequency in saline conditions?<br><i>Chiara Wagner</i>   |
| 15:00 | 735 | Laser-Induced Phase Transformations at the Ti/SiC Interface: Microstructural and Chemical Insights<br><i>Elahe Akbari</i>                                     |
| 15:15 |     |   |
| 15:30 |     | <b>Coffee Break</b>   |
|       |     | <b>SURFACES, INTERFACES AND THIN FILMS V</b><br><i>Chair: Jan Balajka, TU Wien</i>  |
| 16:00 | 741 | SrCrO <sub>3</sub> /LaCrO <sub>3</sub> Superlattices: Transport, Magnetic and Structural Properties<br><i>Simon Jöhr</i>                                      |
|       | 742 | → moved to 719  |
| 16:15 | 743 | Modulation of room temperature ferromagnetism in talc via iron-implantation.<br><i>Muhammad Zubair Khan</i>   |
| 16:30 | 744 | Skyrmion formation mechanisms and pinning in Ir/Co/Pt multilayers<br><i>Reshma Peremadathil Pradeep</i>   |
| 16:45 | 745 | Surface effects in infinite-layer nickelates<br><i>Leonard Verhoff</i>  |
| 17:00 | 746 | Designing and Understanding Cuprate-Analog Superconductivity: Electronic Structure Engineering and Lattice Dynamics in Nickelate Systems<br><i>Wenfeng Wu</i> |
| 17:15 |     | <b>END</b>  |
|       |     | <b>Transfer to Dinner</b>   |
| 19:00 |     | <b>Conference Dinner</b>  |

| ID  | <b>SURFACES, INTERFACES AND THIN FILMS POSTER</b>   |
|-----|---|
| 751 | Forces between hydrophobic surfaces: solvent influence<br><i>Luis N. Ponce-Gonzalez</i>   |
| 752 | PEEM and LEED insights into the growth of ultrathin CoPc and F16CuPc films on Ag(100) surfaces<br><i>Robert Heller</i>                                |
| 753 | Spatially resolving the cone of reaction for a single molecule<br><i>Matthew Timm</i>   |
| 754 | Automatic data acquisition and magnetic field compensation in LEED I(V)<br><i>Florian Dörr</i>  |
| 755 | AFM Study of Lipid Monolayer Modulation Factors<br><i>Wisnu Sudjarwo</i>  |
| 756 | Computational modeling of ice on silver iodide<br><i>Andrea Conti</i>   |
| 757 | Revealing the character of coordination bonding in two-dimensional MOFs by photoemission tomography<br><i>Dominik Brandstetter</i>                    |
| 758 | Surface roughness characterization of biobased nanostructured coatings and nanocomposites<br><i>Maximilian Alexander Molnar</i>                       |
| 759 | Simulating solid-liquid interfaces with machine-learned force fields<br><i>Andreas Kretschmer</i>   |
| 760 | Dielectric relaxation in scanning tunneling microscopy<br><i>Stefan Müllegger</i>   |
| 761 | On-Surface Synthesis of two-dimensional Metal-Organic Frameworks: Structural Assembly, Electronic Properties and Transmetalation<br><i>Olga Resel</i> |

## Physics at Neutron and Synchrotron Sources

Tuesday, 19.08.2025, Room HS 30

| Time  | ID  | PHYSICS AT NEUTRON AND SYNCHROTRON SOURCES<br>Chair: Herwig Michor, TU Wien   |
|-------|-----|---|
| 14:00 | 781 | Ramsey GRS (Gravitational Resonance Spectroscopy) with the qBounce setup<br>Florian Lachaume  |
| 14:15 | 782 | Nano- and Mesoporous Structure Formation Probed with In Situ/In Operando Small and Wide-Angle X-Ray Scattering Analysis during Electrodeposition<br>Heinz Amenitsch |
| 14:30 | 783 | Phase-Contrast Microtomography Applications in Life Sciences at the BEATS Beamline of the SESAME Synchrotron<br>Fareeha Hameed                                      |
| 14:45 | 784 | Study on FeO Nanocubes combining X-ray Scattering Techniques with Various Complementary Characterisation Techniques<br>Rainer T. Lechner                            |
| 15:00 | 785 | Where are the metals? Analysis of elemental distributions in moss leaflets using synchrotron X-ray experiments<br>Matthias Weinberger                               |
| 15:15 | 786 | Conglomerate screening of 1,1'-binaphthalene by thin film preparation<br>Roland Resel   |
| 15:30 |     | END; Coffee Break   |
| 19:00 |     | Public Lecture  |

| ID  | PHYSICS AT NEUTRON AND SYNCHROTRON SOURCES POSTER   |
|-----|---|
| 791 | Deep X-ray Lithography for material science: latest results<br>Benedetta Marmiroli  |
| 792 | Elastic and inelastic neutron scattering studies of magnetism in the heavy fermion system YbPt <sub>5</sub> B <sub>2</sub><br>Herwig Michor |
| 793 | The PERC Beamstop<br>Johannes Schilberg   |
| 794 | Upgrading qBounce: Toward New Frontiers in Quantum State Measurements<br>Christoph Grüner   |
| 795 | Exploring Magnetic Field Effects on Quantum States of Ultracold Neutrons in the qBounce Experiment<br>Daniel Aziz                           |

## Quantum Information and Quantum Computing

THIS SESSION HAS BEEN ORGANISED IN COLLABORATION WITH THE SFB BEYOND C.

Thursday, 21.08.2025, Room HS 7

| Time  | ID  | QUANTUM INFORMATION AND QUANTUM COMPUTING I:<br>QUANTUM THERMODYNAMICS<br>Chair: Joshua Morris, Universität Wien                  |
|-------|-----|---|
| 14:00 | 801 | Precision is not limited by the second law of thermodynamics<br>Florian Meier   |
| 14:15 | 802 | Quantum Master Equations in the Presence of Continuous Measurement and Feedback: Theory and Applications<br>Pharnam Bakhshinezhad |
|       | 803 | cancelled   |

|       |     |  |
|-------|-----|--|
|       | 804 | cancelled  |
| 14:30 | 805 | Information Thermodynamics of Agents<br>Lukas J. Fiderer   |
| 14:45 | 806 | On the second law of thermodynamics in isolated quantum systems<br>Tom Rivlin  |
| 15:00 | 807 | Stabilizer-based entanglement and secure key distillation<br>Christopher Popp  |
| 15:15 |     |  |
| 15:30 |     | Coffee Break   |
|       |     | QUANTUM INFORMATION AND QUANTUM COMPUTING II:<br>QUANTUM INFORMATION THEORY<br>Chair: Christian Siegele, Institute of Science and Technology Austria |
| 16:00 | 811 | High-dimensional entanglement witnessed by correlations in arbitrary bases<br>Nicky Kai Hong Li  |
| 16:15 | 812 | A Framework for the Security Analysis of Practical High-Dimensional QKD Setups<br>Florian Kanitschar   |
| 16:30 | 813 | Bypassing Losses in Quantum Optics: A Robust Measurement Design<br>Mohammad Mehboudi   |
| 16:45 | 814 | Estimating entanglement monotones of non-pure spin-squeezed states<br>Julia Mathe  |
| 17:00 | 815 | The Impact of Architecture and Cost Function on Dissipative Quantum Neural Networks<br>Tobias Christoph Sutter                                       |
| 17:15 | 816 | Generalized Parity Measurements and Efficient Large Multi-component Cat State Preparation with Quantum Signal Processing<br>Sina Zeytinoglu          |
| 17:30 | 817 | Quantum entanglement in Wigner functions<br>Shuheng Liu  |
| 17:45 | 818 | Exact Steering Bound for Two-Qubit Werner States<br>Martin J. Renner   |
| 18:00 |     | END  |
|       |     | Transfer to Dinner   |
| 19:00 |     | Conference Dinner  |

Friday, 22.08.2025, Room HS 7

| Time  | ID  | QUANTUM INFORMATION AND QUANTUM COMPUTING III:<br>QUANTUM FOUNDATIONS AND INFORMATION<br>Chair: Iris Agresti, Universität Wien |
|-------|-----|--|
| 11:00 | 821 | How to implement a causal measurement scheme for quantum fields?<br>Jan Mandrysch  |
| 11:15 | 822 | On the Planckian time of thermalization<br>Paolo Abiuso  |
| 11:30 | 823 | Events and their Localisation are Relative to a Lab<br>Lin-Qing Chen   |
|       | 824 | → moved to 807   |
| 11:45 | 825 | Optimising quantum tomography with classical post-processing<br>Andrea Caprotti  |
| 12:00 |     |  |
| 12:30 |     | Poster Awards and Closing Ceremony   |
| 12:45 |     | Lunch  |

| Time  | ID  | QUANTUM INFORMATION AND QUANTUM COMPUTING IV:<br>EXPERIMENT<br><i>Chair: Patrik Sund, Universität Wien</i>             |
|-------|-----|--|
| 14:00 | 831 | High finesse microcavities for quantum science and technology<br><i>Philipp Koller</i>                                 |
| 14:15 | 832 | Experimental certification of high-dimensional entanglement with randomized measurements<br><i>Giuseppe Vitagliano</i> |
| 14:30 | 833 | Entropic costs of the quantum-to-classical transition in a microscopic clock<br><i>Paul Erker</i>                      |
| 14:45 | 834 | Robust generation of multiphoton states from quantum dots<br><i>Vikas Remesh</i>                                       |
| 15:00 | 835 | Quantum network node based on trapped ions coupled to a cavity<br><i>Sudhan Bhadad</i>                                 |
| 15:15 | 836 | Experimentally probing Landauer's principle in the quantum many-body regime<br><i>Stefan Aimet</i>                     |
| 15:30 | 837 | High-Dimensional Time-Bin Entanglement for Quantum Key Distribution<br><i>Dorian Schiffer</i>                          |
| 15:45 | 838 | Experimental data re-uploading with provable enhanced learning capabilities<br><i>Martin Mauser</i>                    |
| 16:00 |     | <b>END</b>   |

| ID  | QUANTUM INFORMATION AND QUANTUM COMPUTING POSTER  |
|-----|---|
| 841 | Subjective nature of path information in quantum mechanics<br><i>Xinhe Jiang</i>  |
| 842 | The Cumulant Expansion Approach: the Good, the Bad and the Ugly<br><i>Johannes Kerber</i>                                   |
| 843 | Random Numbers from Cosmic Microwave Background for Bell test<br><i>Amin Babazadeh</i>                                      |
| 844 | Uncertainty relations and entanglement with finite Fourier transformed variables.<br><i>Dimpi Thakuria</i>                  |
| 845 | Approaching the mechanical ground state in an inductively coupled electromechanical system<br><i>Bhargava Thyagarajan</i>   |
| 846 | Towards a Quantum Network Node: Trapped Calcium Ions Coupled to a High-Finesse Optical Cavity<br><i>Mehdi Rizvandi</i>      |
| 847 | Adding and removing systems in quantum reference frames<br><i>Bruna Sahdo</i>   |
| 848 | A new view on Quantum Computers<br><i>Christoph Grüner</i>  |
| 849 | Detecting genuine multipartite entanglement in multi-qubit devices with restricted measurements<br><i>Nicky Kai Hong Li</i> |
| 850 | Security Analysis and Implementation of Finite-Size Multi-User CV-QKD with Discrete Modulation<br><i>Florian Kanitschar</i> |
| 851 | Robust quantum memory in a trapped-ion quantum network node with an optical cavity<br><i>James Bate</i>                     |
| 852 | Josephson Gravimeter - Gravity Sensing by Quantum Tunneling in Superconducting Circuit<br><i>Martin Zemlicka</i>            |

## Correlated Quantum Materials and Solid State Quantum Systems

THIS SESSION HAS BEEN ORGANISED IN COLLABORATION WITH THE SFB Q-M&S

Thursday, 21.08.2025, Room HS 27

| Time  | ID  | CORRELATED QUANTUM MATERIALS AND SOLID STATE QUANTUM SYSTEMS<br><i>Chair: Aline Ramires, TU Wien</i>  |
|-------|-----|---|
| 16:00 | 871 | Correlated Quantum Materials and Solid State Quantum Systems<br><i>Silke Bühler-Paschen</i>   |
| 16:15 | 872 | Enhanced entanglement in the pseudogap<br><i>Frederic Bippus</i>  |
| 16:30 | 873 | Quantum Fisher information in quantum critical $\text{Ce}_3\text{Pd}_{20}\text{Si}_6$<br><i>Federico Mazza</i>  |
| 16:45 | 874 | High-entropy magnetism of murunskite<br><i>Priyanka Reddy</i>   |
| 17:00 | 875 | Disentangling Coherent Phonons from Propagation Effects in the Terahertz Kerr Response of Bulk $\text{LaAlO}_3$<br><i>Chao Shen</i>                             |
| 17:15 | 876 | Magnetotropic Susceptibility in $\alpha\text{-RuCl}_3$ : Insights into Bond-Dependent Exchange Interactions and Frustrated Magnetism<br><i>Hamza Nasir</i>      |
| 17:30 | 877 | Low-noise quantum dots in ultra-thin cap Ge/SiGe heterostructures for applications in hybrid semi-conducting-superconducting devices.<br><i>Maksim Borovkov</i> |
| 17:45 |     | <i>Discussion</i>   |
| 18:00 |     | <b>END</b>  |
|       |     | <b>Transfer to Dinner</b>   |
| 19:00 |     | <b>Conference Dinner</b>  |

| ID  | CORRELATED QUANTUM MATERIALS AND SOLID STATE QUANTUM SYSTEMS POSTER  |
|-----|--|
| 881 | Signatures of Weyl-Kondo physics in $\text{Ce}_3\text{Bi}_4\text{Pd}_3$<br><i>Monika Luznik</i>  |
| 882 | Emergent topological phase from quantum criticality in $\text{CeRu}_4\text{Sn}_6$<br><i>Diana Kirschbaum</i>   |
| 883 | <i>cancelled</i>   |
| 884 | Tuning the Weyl-Kondo semimetal $\text{Ce}_3\text{Bi}_4\text{Pd}_3$ via stoichiometry<br><i>Nikolas Reumann</i>  |
| 885 | Investigation of the quantum critical compound $\text{Ce}_3\text{Pd}_{20}\text{Si}_6$ through thermal conductivity<br><i>Gwenvredig Le Roy</i>         |
| 886 | Scrutinizing quantum effects on the classical modeling of $\text{BaCo}_2(\text{AsO}_4)_2$ with the magnetotropic susceptibility<br><i>Shiva Safari</i> |
| 887 | MBE growth of heavy-fermion thin films<br><i>Lukas Fischer</i>   |
| 888 | Microwave conductivity of a strange metal heavy fermion compound<br><i>Thanh Duc Phan</i>  |

## Biophysics and Soft Matter

Friday, 22.08.2025, Room HS 30

| Time  | ID  | BIOPHYSICS AND SOFT MATTER I: BIOPHYSICS<br>Chair: Christof Fattinger  |
|-------|---|--|
| 11:00 | 901                                       | A generic mechanism for force-modulated adsorption of E. coli<br><i>Erik Reimhult</i>  |
| 11:30 | 902                                       | Understanding Fracture in Physically Crosslinked Hydrogels<br><i>Kerstin G. Blank</i>  |
| 11:45 | 903                                       | Effect of 2D confinement and substrate properties on bacterial self-organization at surfaces<br><i>Vincent Hickl</i>                                 |
| 12:00 | 904                                       | Synthesis and flow behaviour of polymer-grafted nanopores<br><i>Giacomo Chizzola</i>   |
| 12:15 | 905                                       | Electro-Acoustic Spinning for the Characterization of Individual Cells<br><i>Tayebeh Saghaei</i>   |
| 12:30 | <b>Poster Awards and Closing Ceremony</b> |  |
| 12:45 | <b>Lunch</b>                              |  |
|       |   | BIOPHYSICS AND SOFT MATTER II: LIGHT AND BIOPHYSICS<br>Chair: Rainer Leitgeb, Med. Universität Wien  |
| 14:00 | 911                                       | New contrasts for holographic microscopy for novel applications in biotechnology and environmental monitoring<br><i>Peter D. J. van Oostrum</i>      |
| 14:15 | 912                                       | Investigation of dynamic tissue properties using optical coherence tomography<br><i>Bernhard Baumann</i>   |
| 14:30 | 913                                       | Light scattering angular dependency in brain tissues determined by wide-field polarimetric and time-of-flight measurements.<br><i>André Stefanov</i> |
| 14:45 | 914                                       | How do Graphium butterflies manipulate colors by using protein?<br><i>Limin Wang</i>   |
| 15:00 | 915                                       | Formation of biophotonic gyroid nanostructures in the butterfly <i>Parides sesostris</i><br><i>Anna-Lee Jessop</i>                                   |
| 15:15 | 916                                       | Mutanofactin affects interactions of mucin-coated surfaces and <i>Streptococcus mutans</i><br><i>Konstantin Nikolaus Beitzl</i>                      |
| 15:30 | <b>END</b>                                |  |

| ID  | BIOPHYSICS AND SOFT MATTER POSTER  |  |
|-----|--|--|
| 931 | Optical Performance of Cylindrical and Tapered Fly Rhodomeres Using a Cascaded Waveguide Approach<br><i>Mahdi Khodadadi Karahroudi</i>     |  |
| 932 | Atomic Force Microscopy (AFM) Analysis of Cellular Mechanics Following Measles Vaccine Virus Infection<br><i>Alexander Einschütz López</i> |  |
| 933 | Understanding Biological Material Mechanics Through Energy Dissipation<br><i>Jose Luis Toca-Herrera</i>                                    |  |
| 934 | Rheo-microscopy of Soft Materials<br><i>Eva Hudec</i>  |  |
| 935 | Non-Universality of Jamming in Cellular Monolayers<br><i>Jasmin Di Franco</i>  |  |
| 936 | Rheomicroscopy of hydrogels across the yielding transitions<br><i>Sakshi Khandelwal</i>  |  |

|     |   |
|-----|---|
| 937 | Cell response to curvature gradients<br><i>Parvathy Anoop</i>   |
| 938 | <i>cancelled</i>  |
| 939 | Cavitation on metallic implants induced by alternating magnetic fields disrupts bacterial biofilms but damages osteoblast-like cells<br><i>Konstantin Nikolaus Beitzl</i> |

## Young Minds

Friday, 22.08.2025, Room HS 2

| Time  | ID         | YOUNG MINDS<br>Chair: David Steiner, Universität Wien   |
|-------|------------|---|
| 14:00 | 991        | Navigating the bias-variance tradeoff in materials science<br><i>Markus Wallerberger (i)</i>              |
| 14:30 | 992        | High-Dimensional Temporal Entanglement for Quantum Key Distribution<br><i>Dorian Schiffer (i)</i>         |
| 14:45 | 993        | Biodegradation of Poly(Ethylene Terephthalate) via selected petase enzymes<br><i>Laura Wolfthaler (i)</i> |
| 15:00 | 994        | Experimental Realization of Inverse-Design Magnonics<br><i>Fabian Majcen (i)</i>                          |
| 15:15 | <b>END</b> |   |

## Further Meetings and Events

| TIME                     | ROOM  | MEETING   |
|--------------------------|-------|---|
| Monday, 18.08., 08:00    | HS 30 | SPS Board Meeting (Non-Public)                                      |
| Monday, 18.08., 18:00    | HS 30 | SPS General Assembly  |
| Monday, 18.08., 08:00    | HS 31 | ÖPG Board Meeting (Non-Public)                                      |
| Monday, 18.08., 18:00    | HS 31 | ÖPG General Assembly  |
| Tuesday, 19.08., 14:00   | HS 29 | ENS Fachausschusssitzung  |
| Tuesday, 19.08., 15:30   | HS 29 | NESY Fachausschusstreffen   |
| Wednesday, 20.08., 20:00 |       | Young Minds Get-Together<br><i>Further information will follow.</i> |
| Thursday, 21.08., 12:00  | HS 27 | SFB BeyondC Business Meeting  |
| Friday, 22.08., 16:30    |       | Lab Tours<br><i>Further information will follow.</i>                |



Stand: 21.08.2025