

CSMAG'25 Programme

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CSMAC'25 Programme

The table below shows explanation of colors in respective timetables

| time | ID | Name | Title |
|------|----|-----------------------|-------------------|
| | | | Opening / Closing |
| | | | Invited lectures |
| | | | Contributed talks |
| | | | Satellite meeting |
| | | | Poster session |
| | | Session | |
| | | Coffee Break | |
| | | Lunch / Dinner | |

Information for presenters

Oral presentations

Present yourself to the session chair at least 15 minutes before the beginning of the session to upload your presentation to the conference room PC using a USB Key. The beamer and screen are set to a 16:9 aspect ratio. Please prepare your slides accordingly. Presentations will be run from the PC which is having Window OS installed together with the Office 2021 suite. Presentation can be prepared in Power Point format or in Adobe PDF format.

Poster presentations

Posters must be 120 cm (height) × 80 cm (width) (A0 format, portrait). Presenters must provide their own printout of the poster, including title and authors. Session codes will be displayed on the session boards. Material for hanging posters will be available. Please hang your poster during the morning sessions and remove it at the end of the poster session.

Awards for Best Presentations

The program chairmen, in cooperation with the session chairmen, will submit a proposal to the conference chair for the best contributions in two categories: **Most Interesting Oral Contribution** (1 award) and **Best Poster** (2 awards). The competition does not apply to invited speakers or contributions scheduled for the last day of the conference.

July 7, 2025, Monday

| | | | |
|-------------|-------|--|--|
| 9:00–14:00 | | Registration | |
| 12:00–13:30 | | Lunch | |
| | | OPENING CSMAG'25 | |
| 13:30–14:00 | | P. Sovák and guests Košice, SK | <i>Welcoming of participants</i> |
| | | INVITED TALKS – chair: J. Fabian | |
| 14:00–14:30 | I-01 | F. Milla Lausanne, CH | <i>Unexpected 1/4 and 1/2 Magnetization Plateaus in the Rare-Earth Shastry-Sutherland Ising Magnet $\text{Er}_2\text{Be}_2\text{GeO}_7$</i> |
| 14:30–15:00 | I-02 | C. Frandsen Copenhagen, DK | <i>Induction-Heated Magnetic Nanoparticles for Catalytic Hydrogen Production</i> |
| 15:00–15:30 | I-03 | B. Lake Berlin, DE | <i>Investigating Quantum States in Spin Chain Materials</i> |
| 15:30–16:00 | I-04 | N. Barisic Zagreb, HR | <i>High-T_c Cuprates and Murunskite: The Importance of Very Local Interactions</i> |
| 16:00–16:30 | | Coffee Break | |
| | | S4 – SPINTRONICS – chair: M. Gmitra | |
| 16:30–17:00 | I-05 | J. Fabian Regensburg, DE | <i>Spintronics With 2D Magnets</i> |
| 17:00–17:15 | 4O-01 | K. Szalowski Łódź, PL | <i>Computational Study of 1T-TaS₂ Monolayer: A Janus Structure Exhibiting Charge Density Wave Ordering</i> |
| 17:15–17:30 | 4O-02 | P. Szabo Košice, SK | <i>High Spin Polarization in Co₂FeSn Heusler Nanowires for Spintronics</i> |
| 17:30–17:45 | 4O-03 | O. Fertman Kharkiv, UA | <i>Low Temperature Magnetic Phase Coexistence in Ni-Fe Layered Double Hydroxides</i> |
| 17:45–18:00 | 4O-04 | J. Ruzs Uppsala, SE | <i>Simulations of Magnetic Scattering at Nano-Scale in Transmission Electron Microscopy</i> |
| 18:00–18:15 | 4O-05 | J. Mnich Košice, SK | <i>The Effect of Magnetization Direction and Stacking of Layers on Charge to Spin Conversion in Graphene on 1T-TaS₂</i> |
| 18:15–18:30 | 4O-06 | J. Pospíšil Praha, CZ | <i>Lattice and Magnetic Excitations in Vanadium van der Waals Trihalides</i> |
| 19:00–22:00 | | WELCOME DINNER | |

July 8, 2025, Tuesday

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| | | S5 – FINE PARTICLES – chair: C. Frandsen | |
| 9:00–9:30 | I-06 | D. Peddis Genoa, IT | <i>3D Hollow Nanostructures: A New Playground for Curvilinear Magnetism</i> |
| 9:30–10:00 | I-07 | V. Šepelák Karlsruhe, DE | <i>Interplay between local structure and magnetism of oxide nanoparticles</i> |
| 10:00–10:15 | 50-01 | D. Kubániová Praha, CZ | <i>Silica Coated Zn-Substituted Magnetite Nanoparticles - Biocompatible Contrast Agents for Theranostics</i> |
| 10:15–10:30 | 50-02 | A. Zelenáková Košice, SK | <i>Effect of Dimensional Parameters on the Magnetic Performance of CoFe₂O₄ Nano-cubes for Magnetic Hyperthermia</i> |
| 10:30–11:00 | | Coffee Break | |
| | | S1 – THEORETICAL CHALLENGES – chair: J. Rusz | |
| 11:00–11:30 | I-08 | L. Šmejkal Dresden, DE | <i>Altermagnetism: from Spin Symmetries to Spintronics and Multiferroics</i> |
| 11:30–11:45 | 10-01 | J. Pytlík Ostrava, CZ | <i>Differential Isotropic Model of Ferromagnetic Hysteresis: Temperature Dependence of Saturation Magnetization and Cluster Magnetic Moment</i> |
| 11:45–12:00 | 10-02 | J. Strečka Košice, SK | <i>Thermal Phase Transitions of Spin-1/2 Ising-Heisenberg Model on the Extended Lieb Lattice in a Magnetic Field</i> |
| 12:00–12:15 | 10-03 | V. Ohanyan Yerevan, AM | <i>Electric-Field Driven Flat Band in Distorted Sawtooth Chain</i> |
| 12:15–12:30 | 10-04 | J. Schusser Plzeň, CZ | <i>The Role of Orbital Angular Momentum in Topologically Non-Trivial Altermagnetic Systems</i> |
| 12:30–12:45 | 10-05 | M. Žukovič Košice, SK | <i>Generalized 2D Planar Rotator Models With Arbitrary Number of Phase Transitions and Various Universality Classes</i> |
| 12:45–14:00 | | Lunch | |
| Part I | | S6 – LOW DIMENSIONAL MATERIALS – chair: S. Zvyagin | |
| 14:00–14:30 | I-09 | R. Colman Praha, CZ | <i>A Frustrated Antipolar Analogue to the Classical Spin Liquid in Triangular Lattice EuAl₁₂O₁₉</i> |
| 14:30–14:45 | 60-01 | K. Carva Praha, CZ | <i>Magnetism and Excitations in Quasi-2D Materials Under External Perturbations: Microscopic Understanding</i> |

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| 14:45–15:00 | 6O-02 | P. Doležal Praha, CZ | <i>Magneto-Elastic Interaction in $Y_3Cu_9(OH)_{19}Cl_8$</i> |
| 15:00–15:15 | 6O-03 | M. Rajňák Košice, SK | <i>Energy Harvesting by Ferrofluids</i> |
| 15:15–15:30 | 6O-04 | M. Antkowiak Poznań, PL | <i>Influence of Magnetic Field Averaging on Modeling Magnetic Properties of Molecular Nanomagnets</i> |
| 15:30–15:45 | 6O-05 | J. Kobylarczyk Krakow, PL | <i>Exploration of Large Coordination Clusters and Their Switchability</i> |
| 15:45–16:00 | 6O-06 | A. Darwich Košice, SK | <i>EPR Study of Spin Anisotropies in the $S = 1/2$ Spatially Anisotropic Triangular Quantum Magnet $Cu(tn)Cl_2$</i> |
| 16:00–16:30 | | Coffee Break | |
| Part I | | S2 – SOFT MAGNETIC MATERIALS – chair: P. Kollár | |
| 16:30–17:00 | I-10 | I. Škorvánek Košice, SK | <i>Soft Magnetic Nanocrystalline Alloys Prepared by Ultra-Rapid Annealing</i> |
| 17:00–17:15 | 2O-01 | V. Šepelák Karlsruhe, DE | <i>Magnetic Behavior of Nanostructured and Far-From-Equilibrium Complex Oxides</i> |
| 17:15–17:30 | 2O-02 | A. Perevertov Praha, CZ | <i>Modeling the Effect of Stress on the Magnetization Curves as a Simple Magnetic Field Scaling</i> |
| | | POSTER SESSION I – chair: P. Sovák | |
| 17:30–19:00 | | <i>POSTER presentations</i> Topics 2, 3, 5 and 9 | |
| 19:00–22:00 | | DINNER WITH CONCERT – IL DUETTO | |

July 9, 2025, Wednesday

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| | | S7 – RARE EARTH AND 5f SYSTEMS – chair: M. Giovannini | |
| 9:30–10:00 | I-11 | S. Piligkos Copenhagen, DK | <i>Lanthanide Coordination Complexes for Quantum Technologies</i> |
| 10:00–10:15 | 7O-01 | S. Kumar Praha, CZ | <i>Magnetic Anisotropy and Frustration in the Triangular-Lattice Magnet NdMgAl₁₁O₁₉</i> |
| 10:15–10:30 | 7O-02 | J. Kaštil Praha, CZ | <i>Electronic and Magnetic Properties of EuZn₂P₂ Under Pressure</i> |
| 10:30–11:00 | | Coffee Break | |
| Part I | | S8 – STRONGLY CORRELATED SYSTEMS – chair: K. Flachbart | |
| 11:00–11:30 | I-13 | A. Grockowiak Dresden, DE | <i>An Experimental View on Superconductivity in the Superhydrides</i> |
| 11:30–11:45 | 8O-01 | R. Hlubina Bratislava, SK | <i>Is the Established Theory of Superconductivity Incomplete?</i> |
| 11:45–12:00 | 8O-02 | P. Samuely Košice, SK | <i>Ising Superconductivity in Bulk 4H_a-NbSe₂</i> |
| 12:00–12:15 | 8O-03 | B. Rusin Wroclaw, PL | <i>New Ti-rich Yttrium-Containing Superconducting High-Entropy Alloys With High Upper Critical Field</i> |
| 12:15–12:30 | 8O-04 | P. Kováč Bratislava, SK | <i>Perspectives of Iron Pnictide and MgB₂ Superconductors Discovered in the Third Millennium</i> |
| 12:30–12:45 | 8O-05 | F. Herman Bratislava, SK | <i>Local Limit Disorder Characteristics of Superconducting Radio Frequency Cavities</i> |
| 12:45–13:00 | | Conference Photo | |
| 13:00–14:00 | | Lunch | |
| Part I | | SATELLITE MEETING – chair: J. Bednarčík | |
| 14:00–14:30 | SM-01 | P. Sovák Košice, SK | <i>The Role of National Contact Point XFEL and ERI for Slovak Research Community</i> |
| 14:30–15:00 | SM-02 | R. Carley Hamburg, DE | <i>The SCS Instrument of the European XFEL: A Versatile Tool for Ultrafast Magnetism</i> |
| 15:00–15:30 | SM-03 | K. Schlage Hamburg, DE | <i>Imaging the Spin Structure in Self-Assembled Magneto-Resistive Multilayer Nanowires</i> |
| 15:30–16:00 | SM-04 | J. Krempaský Villigen, CH | <i>Unconventional Altermagnetic Photoresponse by Polarized Light</i> |
| 16:00–16:30 | | Coffee Break | |
| Part II | | SATELLITE MEETING – chair: J. Krempaský | |
| 16:30–17:00 | SM-05 | H. Dil Lausanne, CH | <i>Switching Topological Spin Textures with Photocurrents</i> |
| 17:00–17:30 | SM-06 | P. Benčok Didcot, UK | <i>Research on the Beamline for Advanced Dichroism Experiments</i> |

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| 17:30–18:00 | SM-07 | Š. Michalik Didcot, UK | <i>Advanced Synchrotron Techniques for Real-Time Analysis of Magnetic and Structural Properties</i> |
| 18:00–18:30 | SM-08 | J. Kulda Grenoble, FR | <i>Pump-Probe Neutron Inelastic Scattering Experiments</i> |
| 18:30–19:00 | | Panel Discussion | |
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| 19:00–22:00 | | DINNER WITH MIKI KNIŽKA - MOUNTAIN GUIDE | |

July 10, 2025, Thursday

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| | | S3 – ENERGY APPLICATIONS – chair: T. Szumiata | |
| 9:00–9:30 | I-14 | P. Zackiewicz Gliwice, PL | <i>Soft Magnetic Materials: Key Technologies Driving Energy Applications</i> |
| 9:30–10:00 | I-15 | P. Ripka Praha, CZ | <i>Soft Magnetic Materials for Sensor Applications</i> |
| 10:00–10:15 | 30-01 | D. Legut Praha, CZ | <i>Origin of MAE and Second Order Anisotropy due to the Magnetostriction in Tetragonal Systems – Example of FePt</i> |
| 10:15–10:30 | 30-02 | P. Gębara Częstochowa, PL | <i>Magnetocaloric Effect in Binary Gd-Pb Alloys</i> |
| 10:30–11:00 | | Coffee Break | |
| Part II | | S6 – LOW DIMENSIONAL MATERIALS – chair: R. Colman | |
| 11:00–11:30 | I-16 | S. Zvyagin Dresden, DE | <i>Manipulating Ground State Properties of a Large-D Spin-1 Chain System by Pressure</i> |
| 11:30–11:45 | 60-07 | V. Cheranovskii Kharkiv, UA | <i>Peculiarities of the Energy Spectrum and Quantum Phase Transitions in 1D Spin Models of Nanomagnets</i> |
| 11:45–12:00 | 60-08 | M. Fitta Krakow, PL | <i>Stimuli-Responsive Composites Incorporating Molecular Magnets and Organic Polymers</i> |
| Part II | | S8 – STRONGLY CORRELATED SYSTEMS – chair: R. Colman | |
| 12:00–12:30 | I-17 | T. Cren Paris, FR | <i>Upper Critical Field and Pairing Symmetry of Ising Superconductors</i> |
| 12:30–12:45 | 80-06 | J. Kačmarčík Košice, SK | <i>Single-Gap Two-Band Superconductivity Well Above the Pauli Limit in TaIr₂B₂</i> |
| 12:45–14:00 | | Lunch | |
| | | S9 – MULTIFUNCTIONAL MATERIALS – chair: P. Gębara | |
| 14:00–14:30 | I-18 | A. Barbier Paris, FR | <i>Artificial Magnetoelectric Multiferroic Thin Films Combining Ferrites and Barium Titanate: Magnetism vs. Structure</i> |
| 14:30–15:00 | I-19 | O. Heczko Praha, CZ | <i>Progress in Understanding Magnetic Shape Memory Effects</i> |
| 15:00–15:15 | 90-01 | A. Salak Aveiro, PT | <i>Temperature- and Composition-Driven Structural and Magnetic Transitions in High-Pressure Stabilized Perovskites Based on BiFeO₃</i> |
| 15:15–15:30 | 90-02 | D. Musiienko Praha, CZ | <i>Broadband Ferromagnetic Resonance in NiMnGa crystal</i> |
| 15:30–15:45 | 90-03 | C. Hervoches Praha, CZ | <i>Stabilization of I-type Ni₄Nb₂O₉ Structure and Magnetic Properties in Ni₄Nb_{1.8}W_{0.1}Ti_{0.1}O₉</i> |
| 16:00–16:30 | | Coffee Break | |

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| Part II | | S2 – SOFT MAGNETIC MATERIALS – chair: I. Škorvánek | |
| 16:30–17:00 | I-20 | V. Tsakaloudi Thessaloniki, GR | <i>Manganese-Zinc Ferrites: Material Design Challenges and Development Approaches Towards Advanced Applications</i> |
| 17:00–17:15 | 2O-03 | J. Bednarčík Košice, SK | <i>Impact of Stress-Induced Anisotropy on Fe₃Si Nanocrystals</i> |
| 17:15–17:30 | 2O-04 | M. Cesnek Praha, CZ | <i>Neutron Irradiation Effects on Fe-Based Metallic Glasses</i> |
| | | POSTER SESSION II – chair: A. Zeleňáková | |
| 17:30–19:00 | | | <i>POSTER presentations</i> Topics 1, 4, 6, 7, 8 and 10 |
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| 19:00–22:00 | | FAREWELL DINNER WITH | |
| | | FOLKLORE PERFORMANCE - SKADZI STADZI | |

July 11, 2025, Friday

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| Part I | | S10 – OTHER MAGNETIC MATERIALS – chair: J. Minár | |
| 9:00–9:30 | I-21 | A. Kumar Gothenburg, SE | <i>Spin-Wave Mediated Mutual Synchronization and Phase Tuning of Spin Hall Nano-Oscillators</i> |
| 9:30–9:45 | 100-01 | Y.P. Hsieh Taipei, TW | <i>Pt-Doped WS₂ the First Extrinsic Dilute Magnetic 2D Semiconductor</i> |
| 9:45–10:00 | 100-02 | M. Hofmann Taipei, TW | <i>Unmasking the Intrinsic Spin Dynamics at the Interfaces of 2D Materials and Ferromagnets</i> |
| 10:00–10:15 | 100-03 | A. Kancko Praha, CZ | <i>Spin-Glass and Quantum Spin Liquid Ground-States in NaCdM₂F₇ Pyrochlore and Defect-Fluorite) Antiferromagnets</i> |
| 10:15–10:30 | 30-03 | S. Sakthivel Caen, FR | <i>Magnetic Slip Casting: A Route to Realize Rotational MCE in Textured Polycrystals</i> |
| 10:30–11:00 | | Coffee Break | |
| Part II | | S10 – OTHER MAGNETIC MATERIALS – chair: P. Ripka | |
| 11:00–11:30 | I-22 | J. Minár Plzeň, CZ | <i>Quantum Materials and Magnetic Phenomena Studied by Spin Resolved ARPES: Theoretical Perspectives</i> |
| 11:30–11:45 | 100-05 | T. Szumiata Radom, PL | <i>Technogenic Particles Emission Sources Identification with Magnetic Methods and Mössbauer Spectrometry</i> |
| 11:45–12:00 | 100-06 | A. Ostaszewska Liżewska Warsaw, PL | <i>Influence of Mesh Granularity on the Accuracy of Modeling the Magnetic Flux Density Attenuation of Aluminum-Steel Cases</i> |
| 12:00–12:15 | 100-07 | B. Kocsis Szeged, HU | <i>Exploring the Soft Magnetic Properties of Various Iron-Silicon Alloys Manufactured via Selective Laser Melting</i> |
| 12:15–12:30 | 100-08 | M. Neslušan Žilina, SK | <i>Strain Induced Martensite in the Austenitic Steels and its Monitoring via Barkhausen Noise Emission</i> |
| | | CLOSING CSMAG'25 | |
| 12:30–12:45 | | J. Kalbáčová Vejpravová Praha, CZ | <i>Closing remarks</i> |
| 12:45–13:00 | | P. Sovák, A. Zeleňáková, J. Bednarčík Košice, SK | <i>Closing CSMAG'25</i> |
| 13:00–14:00 | | Lunch | |

Social Programme

- **IL DUETTO, Violin & Piano duo** •
[Tue, July 8, 19:00-20:00]

Come and unwind, connect with fellow attendees, and immerse yourself in a wonderful performance that will enrich the spirit of our gathering. Music performance of the IL DUETTO, Violin & Piano duo.

- **Miki Knižka, mountain guide** •
[Wed, July 9, 20:30-21:30]

Come and spend interesting time with hut keeper on Zbojnícka chalet Miki Knižka. Miki is mountain guide, adventurer, skier, alpinist with over 10 years of exploring in Canada, ascents to many peaks of South and North America, and various ski touring adventures around the world and in our High Tatras.

- **Skadzi Stadzi, folklore ensemble** •
[Thu, July 10, 19:00-20:30]

Join us for an evening of captivating music, singing, and authentic traditions that have been passed down for generations.