## 18th Czech and Slovak Conference on Magnetism

## Tuesday, July 8, 2025

POSTER Session: PART 1 (Topics 2, 3, 5 and 9) (5:30 PM - 7:00 PM)

-Conveners: Adriana Zeleňáková; Pavol Sovák

[id] title	presenter	board
[90] Influence of the Distribution of Electroinsulator on the Magnetic Properties of NiFeMo Based Soft Magnetic Composites	Dr FÜZER, Ján	
[83] Magnetism in GdMn\$_{1-x}\$Ti\$_x\$O\$_3\$ (\$0.0 \leq x \leq 0.1\$) Multiferroic System	ASHRAF, Muhammad Faisal	
[159] Multiferoic BaErFeO\$_4\$: Mössbauer Spectroscopy Study	KOHOUT, Jaroslav	
[8] Shape Anisotropy Effect on the Magnetocaloric Performance of Heusler Ni\$_{53}\$Fe\$_{20}\$Ga\$_{27}\$ Microwire	HENNEL, Miroslav	
[165] In-situ XRD Observation of Stress Induced Anisotropy in Vitroperm \$800\$	Ms KAUR, Ravneet	
[21] Finite Elements-Based Method of Modeling the Eddy-Current Losses in Ribbon Ring-Shaped Cores With a Gap	Prof. SZEWCZYK, Roman	
[121] Ligand Exchange Effect on Stabilization and Magnetic Properties of Cobalt-Ferrite Nanoparticles	Dr HRUBOVČÁK, Pavol	
[174] \$3\$D Hollow Nanostructures: A New Playground for Curvilinear Magnetism	PEDDIS, Davide	
[65] The Influence of Ni\$^{2+}\$ Ion Addition on Thermal and Magnetic Properties of \$2\$CaO-Al\$_2\$O\$_3\$-SiO\$_2\$ Glasses	MAJEROVÁ, Melinda	
[163] Magnetization as Probe for Purity of Schwertmannite	PILLONI, Cristian	
[160] Correlation of the Structural and Magnetic Morphology of Nanoparticles	Dr ZÁKUTNÁ, Dominika	
[136] Radiolabeling of Functionalized Magnetic Nanoparticles for Potential Theranostic Use	Dr ZÁVIŠOVÁ, Vlasta	
[39] Polyvinyl Alcohol-Coated Magnetic Nanoparticles for Biomedical Applications	Ms PILLÁROVÁ, Paula	
[191] MI-sensing Properties of CoSiB Amorphous Wires	Prof. MITROVIC, Nebojša	
[55] Stability and Magnetic Ordering Near the Antiphase Boundary in Ni\$_2\$MnGa	MÁCA, František	
[154] Asymmetrical GMI Effect in Cobalt Base Microwires	Dr KRAVČÁK, Jozef	
[47] Oscillations of a Single Domain Wall in Alternating Magnetic Field in Bistable Microwire	Dr ONUFER, Jozef	
[82] Soft Magnetic Properties of FeCoB/Cu Nanocrystalline Ribbons	Dr BUTVINOVÁ, Beata	
[23] Non-Ohmic Behavior in [Ni\$_{80}\$Fe\$_{20}\$/HfO\$_2\$]\$_n\$ Discontinuous Multilayers	Dr KOMANICKÝ, Vladimír	
[156] Magnetic Nanoparticles Integrated Into SiO\$_2\$ Hydrogel: Synthesis, Properties, and Applications	Dr SZŰCSOVÁ, Jaroslava	
[120] Highly Anisotropic Magnetic CoFe\$_2\$O\$_4\$ Nanoparticles in Various Shapes as Magneto-Thermal Agents	Dr NAGY, Ľuboš	

[112] Tailoring the Matteucci Effect in Amorphous Glass-Coated Microwires by Thermal Annealing	Dr RICHTER, Kornel
[147] Electrophysical Properties of Magnetic Composites With Ferrites and Nanocarbon	Dr MAZURENKO, Yuliia
[137] N-Acetylcysteine Designed Magnetic Nanoparticles for MRI	Dr KONERACKA, Martina
[128] Mesoporous Silica Coated Magnetic Nanoparticles for Targeted Delivery of Antithrombotic Drugs	Dr BEŇOVÁ, Eva
[94] Investigations of Magnetic Properties of Nanoribbon Arrays Based on Co and Cu	Dr VOROBIOV, Serhii
[130] Evolution of Nano-Precipitates and Their Effect on Microstructural Design and Magnetic Properties of Electrical Steel	Dr PETRYSHYNETS, Ivan
[69] Magnetic Influence on Thermoelectric Properties of Fe\$_2\$TiAl Heusler Alloy	NALEVANKO, Samuel
[45] Multifunctional Magnetic Nanomaterials for Biomedical Applications	JEDINÁK, Valentín
[41] Comparative Characterization of Structural, Magnetic Properties, and Heating Efficiency of Single- and Multicore Iron Oxide Nanoparticles	Dr KHMARA, Iryna
[145] Temperature-Dependent Enhanced Gyrator-Capacitor SPICE Model for Ferrite-Core Inductors With High Permeability	GAZDA, Piotr
[115] Directional Relaxation of Stress-Induced Anisotropy of Crystal Lattice in VITROPERM-800	Dr GIRMAN, Vladimír
[181] Novel One-Pot Synthesis of Strongly Exchange-Couped FeCo-CoFe\$_2\$O\$_4\$ Nanocomposites With Tailored Magnetic Properties	HUSNAIN, Hammad
[188] Measurement of Pressure and Temperature of the Automobile's Brake System using a Contactless Sensor	Mr ONUFER, Samuel
[76] Oxygen-Controlled Magnetic and Magnetocaloric Behavior in NdMnO\$_{3+\delta}\$	KHAN, Izaz
[190] Analysis of the Components of Energy Losses Fe-based Compacted Powder Material	PROVÁZKOVÁ, Lívia
[33] Tuning of Nodal Line States via Chemical Alloying in Co\$_2\$CrX (X = Ga, Ge) Heusler Compounds for a Large Anomalous Hall Effect	DSOUZA, Sunil Wilfred
[78] The Effect of Chromium of the Temperature Dependence of the Switching Field in Iron-Molybdenum-Boron Stage Nano Crystalline Microwire	DURANKA, Peter
[51] Switching Field Fluctuations in Head-to-Head and Tail-to-Tail Domain Walls in Amorphous Microwires Under Mechanical Stress	Mr ELIÁŠ, Martin
[1] Grain Size Determination using XRD Line Profiles via Iterative Convolution	Mr DUBECKÝ, Peter
[168] High Temperature Measurement Using Glass Coated Bistable MicroWires	FINDRIKOVA, Simona
[9] Investigation of Structure-Property Relationships in Fe-Based Nanocrystalline Alloy	Dr YUDINA, Daria
[95] Investigation of Structural Heterogeneity in Soft Magnetic Materials Formed by Hot Powder Compaction	Prof. KOLLÁR, Peter
[142] Simulation and Optimization of the Preparation Process of Soft Magnetic Materials	ADAMKO, Justín
[38] Dual-Point Temperature Sensing in Single Glass-Coated Microwire	Dr GALDUN, Ladislav
[131] Magnetic Nanoparticles With Different Shapes for Magnetic Separation of DNA/RNA	BARUTIAK, Michael

[151] Investigating Magnetic Properties of Octapod-Shaped Magnetic Nanoparticles via AC Susceptibility	FABRICIOVÁ, Žaneta	
[170] Magnetic Morphology of Multishell Nanoparticles	HRICOV, Štefan	

## **Thursday, July 10, 2025**

## POSTER Session: PART 2 (Topics 1, 4, 6, 7, 8 and 10) (5:30 PM - 7:00 PM)

-Conveners: Adriana Zeleňáková; Pavol Sovák

[id] title	presenter	board
[48] Manifestations of Bound Magnons and Cluster-Based Haldane States in Magnetic Behavior of a Spin-1 Heisenberg Diamond Chain	ZOSHKI, Azam	
[96] Fast Cooling of the Hexanuclear Fe\$^{3+}\$ Cluster	ARIAN ZAD, Hamid	
[93] Magnetic Field-Assisted Electrodeposition of Ni\$_3\$Pt Mesoscopic Wires	STROPKAI, Branislav	
[92] Magnetic Properties of Cu(\$en\$)(\$sal\$)Cl - A Quasi-Two-Dimensional \$S=1/2\$ Ferromagnet on a Square Lattice	KOZIN, Illia	
[50] Magneto-Raman and Magneto-Photoluminescence Spectroscopies on van der Waals Materials	Prof. KALBÁČOVÁ VEJPRAVOVÁ, Jana	
[133] Quantum Heisenberg Isotropic Ferromagnet With a Magnetoelastic Interaction	Mr MORADI, Majid	
[109] Thermal Phase Transitions in a Deformable Quantum Spin–\$1/2\$ XX Chain in a Transverse Magnetic Field	SIVÝ, Dávid	
[103] Memory Effects of a Static Magnetic Field on Brownian Motion and the Absence of Classical Magnetism	Prof. LISÝ, Vladimír	
[31] Guided Exchange-Dipole Spin Wave in Monolayer CrSBr	WANG, Daowei	
[20] Magnons in Altermagnets: Group-Theoretical Aspects	TUREK, Ilja	
[63] Unveiling the Degeneracy of Bound-Magnon States from Magnetic and Magnetocaloric Properties of the Spin-\$1/2\$ Heisenberg Octahedral Chain	NEMCIK, Michal	
[102] Effect of Magnetic Field on Neutral Bath Containing Charged Brownian Particles	TÓTHOVÁ, Jana	
[5] Localized Creation of Skyrmion Bubbles in Fe\$_3\$GaTe\$_2\$ by Conductive Atomic Force Microscopy	LIN, Wen-Chin	
[37] Development of Fractional Magnetization Plateaus in Metallic Quasi-\$2\$ Dimensional Shastry-Sutherland System TmB\$_4\$ at Various Orientations and in High Magnetic Fields	Dr ORENDÁČ, Matúš	
[111] Magnetization Dynamics of Iron Garnet Thin Films and Heterostructures	BHATTI, Imtiaz	
[146] Weak Ferromagnetism in Two-Dimensional Transition Metal Tetrafluoride Altermagnets	Dr GMITRA, Martin	
[46] Effects of Single Crystal and Dipolar Anisotropy on Antiferromagnetic Order in the Frustrated fcc Magnet HoB\$_{12}\$	Dr SIEMENSMEYER, Konrad	
[53] High-Entropy Cylindrite (FeSb\$_2\$Pb\$_3\$Sn\$_4\$)S\$_{14}\$ - Type Compounds: Mechanochemical Synthesis and Magnetic Properties	Dr BALÁŽ, Peter	
[66] SQUID Magnetometry Applied to the Study of Surface Properties of Titanium Alloy Biomedical Implants	DVURECENSKIJ, Andrej	
[101] Spin-Crossover in Cu and Fe-Based Metallophthalocyanines: XAS and XMCD Investigations	Dr HOLUB, Mariia	
[116] Lanthanides MOFs Containing MTA\$^{4-}\$ in Magnetism	Dr KIRÁLY, Nikolas	
[153] Magnetic Materials Formed With Additive Techniques	SIEDLECKI, Krzysztof	

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[91] The Role of Local Vibrational Modes in Magnetic Relaxation of [Gd(H\$_2\$O)\$_6\$Cl\$_2\$]Cl	TITIKOV, Hryhorii	
[77] Probing Dynamical Correlations, Structure Factors, and Entanglement in a Spin-\$1/2\$ Heisenberg Tetrahedron	SHAHHOSSEINI SHAHRABADI, Elham	
[70] Magnetic Field Induced Phase Transitions in Dimerized Quantum Magnets Cu(en)\$_2\$SO\$_4\$ and Cu(en)\$_2\$CrO\$_4\$	Dr ORENDÁČOVÁ, Alžbeta	
[134] Two-Gap Superconductivity in the Non-Centrosymmetric La\$_{3}\$Se\$_{4}\$ Compound	KOŠUTH, Filip	
[84] Experimental Study of Magnetostructure Correlations in Cu(\$tn\$)(SCN)\$_2\$ System with Spin \$S = 1/2\$	Dr TARASENKO, Róbert	
[44] Magnetic Properties of Heterometallic Ni\$_{2}\$M\$_{2}\$ (M = Mn, Co) Cubane Complexes	ČIŽMÁR, Erik	
[88] Investigation of the Physical Properties of ZIF-\$67\$ and its Diamagnetic Counterpart ZIF-\$8\$	KOTVYTSKA, Liliia	
[98] Consolidated Fe/FeSi Mixtures for Applications Requiring Increased Frequency Stability of Magnetic Properties	RAVI, Soundariya	
[74] Effect of Uniaxial Single-Ion Anisotropy on Stability of Quantum and Thermal Entanglement in a Mixed-Spin Heisenberg Trimer	Dr VARGOVA, Hana	
[43] Effect of Different Ratio of Eu\$211\$ Phase on the Superconducting Properties of EuBCO Bulk Superconductor	Dr VOJTKOVA, Liudmila	
[108] Eu\$_2\$Pd\$_3\$Sn\$_5\$ - Structural and Physical Properties of a Novel Compound	Dr ČURLÍK, Ivan	
[71] Structural and Magnetic Properties of a New Eu-Pd-Sn Compound: Eu\$_3\$Pd\$_4\$Sn\$_{13}\$	Ms TRABELSI, Imen	
[189] Hardness Anisotropy of HfC and TaC Ceramic Grains for Magnetic Applications	RAVIKUMAR, Yogesh Kumar	
[10] Polarization-Resolved Position-Sensitive CrSBr Photodetector	KALBAC, Martin	
[12] Influence of Hydrostatic and Uniaxial Pressure on the Anisotropic Quantum Magnet TmB\$_4\$	Dr GABÁNI, Slavomír	
[114] Magnetic Properties of the Dy\$_{x}\$Y\$_{1-x}\$(PO\$_{3}\$)\$_{3}\$ Glasses	Dr TKÁČ, Vladimír	
[85] Coexistence of Quantum Tunnelling and Anomalous Raman Relaxation in {[Ce\$_2\$(\$o\$PDA)\$_3\$(H\$_2\$O)\$_2\$]\$\cdot\$2H\$_2\$O}\$_n\$	Prof. ORENDÁČ, Martin	
[29] Lanthanum-Substituted Nickel-Zinc Ferrites Used as Fillers for Composites	ŠOKA, Martin	
[36] Study of Superconductivity in High-Entropy Alloy Films – Influence of Various Parameters	Dr PRISTÁŠ, Gabriel	
[175] Magnetic Properties of Layered EuOCl and EuOBr Materials: Investigations and Mathematical Simulation	BUNDA, Viktor	
[123] Scalable Effective Models for Complex Superconducting Nanodevices	BOBOK, Daniel	
[105] Upper Critical Fields Obtained Within Different Approaches for Optimally-Doped YBa\$_2\$Cu\$_3\$O\$_{7-\delta}\$ Thin Films	PETRENKO, Yevhen	
[42] Bistable Microwire Usage as the Sensor for Single Chip Applications	Dr JACKO, Patrik	
[73] Superconducting Properties of GdBCO Bulk Superconductors Prepared by SDMG Process	Dr VOLOCHOVÁ, Daniela	
[97] Magnetic Tricriticality in Antiferromagnets	Prof. SECHOVSKÝ, Vladimír	
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[141] Extraction of the Density of States and the Gap Function on a Temperature Smearing Scale From the Tunneling Conductance Data	GELENEKYOVÁ, Lucia	
[7] Superconductivity in (NbMoTaW)-C-N Carbonitride Films	Dr FLACHBART, Karol	
[192] Exploring Altermagnetism in MnTe	DAL DIN, Alfred	