



> polytopo

Topological textures: Experiments, Theory, Simulation
and Mathematical Analysis

15th – 18th of June 2026, Iași, Romania

Programme



“Gheorghe Asachi” Technical University of Iași (TUIAȘI)



Monday - 15th of June 2026

 Aula Magna “Carmen Sylva”

13:00 – 15:00 Registration at DMCS**

15:20 – 15:30 Welcome

15:30 – 16:30 **Claas ABERT**
Variational Physics-Informed Reconstruction of Topological Magnetic Textures

16:30 – 17:00 Coffee break

17:00 – 18:00 **Ionel Dumitrel GHIBA**
Shell Models in Classical and Cosserat Nonlinear Elasticity

18:00 – 18:20 **Stavros KOMINEAS**
POLYTOPO: Current Status and Future Plans

** DMCS = Department of Mathematics and Computer Science

Tuesday - 16th of June 2026

Room P7

08:30 – 08:45 Coffee

08:45 – 09:00 Poster session: **A. NAVALLUR, S. RUTA, D. BORODINAS**

09:00 – 10:00 **Gediminas JUZELIŪNAS**
Topological Sub-Wavelength Optical Lattices for Ultracold Atoms

10:00 – 10:30 Coffee break

10:30 – 11:30 **Maciej GAŁKA**
Realizing Integer and Fractional Quantum Hall States with a Few Rapidly Rotating Fermions

11:30 – 11:50 **Oleksandr DOBROVOLSKIY**
Superconductivity in Curved 3D Nanoarchitectures

11:50 – 12:10 **Amir CAPUA**
Detection of Spin Polarized Currents by Spin-Torque Skyrmion Resonance in a Frustrated Magnet

12:10 – 12:30 **Krisztián PALOTÁS**
Magnetic Skyrmions Probed and Manipulated by Spin-Polarized Scanning Tunneling Microscopy: Efficient Spin Switching

12:30 – 14:30 Lunch break

14:30 – 15:30 **Svitlana KONDOVYCH**
Topology and Critical Properties of Divergenceless Ferroic Textures

15:30 – 16:30 **Cameron SCOTT**
Tuning Polar Textures with Temperature Gradients

16:30 – 17:00 Coffee break

17:00 – 18:00 **Mauro António PEREIRA GONÇALVES**
Chasing Topological Texture in Polar Oxides

Wednesday - 17th of June 2026

🏛 Room P7

08:30 – 08:50 Coffee

08:50 – 09:00 Poster session: **D. CHEVIZOVICH, G. THEODOROU**

09:00 – 10:00 **Salia CHERIFI-HERTEL**
Nonlinear Optical Imaging of Polar Topological Textures in Ferroelectric Materials

10:00 – 10:30 Coffee break

10:30 – 11:30 **Marty GREGG**
Novel Topological Structures at Twisted Ferroelectric Interfaces

11:30 – 12:30 **Mara STRUNGARU**
Topological Spin Textures in 2D Magnets

12:30 – 14:30 Lunch break

14:30 – 14:50 **Oksana CHUBYKALO-FESENKO**
Novel Three-Dimensional Topological Magnetic Domain Walls and their Dynamics

14:50 – 15:10 **Levente RÓZSA**
Spin Inertia as a Source of Topological Magnons: Chiral Edge States from Coupled Precession and Nutation

15:10 – 16:00 Working group meetings

16:00 – 18:00 MC Meeting

Thursday - 18th of June 2026

 Room P7

08:30 – 09:00 Coffee

09:00 – 10:00 **Stavros KOMINEAS**
Dynamics of skyrmions in magnets and a memory effect

10:00 – 10:30 Coffee break

10:30 – 11:30 **Theresa SIMON**
Magnetic Skyrmions

11:30 – 11:50 **Shilpa DUTTA**
A Variational Approach to Ferronematics with a Stray Field Energy

11:50 – 12:10 **Theodora IOANNIDOU**
Construction of Novel Algebra

12:10 – 12:30 **Danial SAADATMAND**
Phonons Scattering off Discrete Asymmetric Solitons in the Absence of a Peierls–Nabarro Potential

12:30 – 14:30 Lunch break

14:30 – 14:50 **Maria KYRIAZI (GWIS)**
Participation in Science Is Designed: What Shapes Inclusion, Visibility, and Engagement in Research Communities

14:50 – 15:10 **Michele RUGGERI**
From Research to Society: Outreach Activities in Polytopo

15:10 – 15:30 **Ümit AKINCI**
Interlayer Interaction as a Mechanism for Engineering Topological Textures in Thin Films: From Meron Crystals to Induced Skyrmions

15:30 – 16:30 **Emanuela GUSSETTI**
Existence of Statistically Stationary Solutions to the Schrödinger Map Equation

16:30 – 17:00 Coffee break

17:00 – 18:00 **Giacomo CANEVARI**
Singular Perturbations of Manifold-Valued Maps: Topological Singularities and Compactness Results

18:00 – 18:10 Closing remarks

This brochure is based upon work from COST Action POLYTOPO-CA23134, supported by COST (European Cooperation in Science and Technology).

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