



The 4th Polish-Slovenian International Seminar on
Young 4 Soft Matter DAY
2nd February 2026



Young4SoftMatter DAY

SCHEDULE

ONLINE EDITION



DIRECTORS: Aleksandra DROZD-RZOSKA (POLAND) & Samo KRALJ (SLOVENIA)



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‘Young 4 Soft Matter’ DAY

10:00 – 10:30

Aleksandra Drozd-Rzoska _ OPENING LECTURE

ORAL Presentations

10:40 – 11:00

Global Population, Carrying Capacity, and High Quality Foods

Agata Angelika Sojecka _ Poland

11:00 – 11:20

Phase Equilibria in Mixtures with Limited Miscibility – New Perspective

Jakub Kalabinski _ Poland

11:20 – 11:40

*High Pressure Treatment of Sodium Olivine-Like Glass: Increased Conductivity
in the Possible Future Cathode Material*

Aleksander Szpakiewicz-Szatan _ Poland

11:40 – 12:00

*Structural Properties of V_2O_5 Glasses Compressed under High Pressure. Combined
Experimental and Computational Study*

Adam Puchalski _ Poland

12:00 – 12:20

*Si-doped $Na_2VFe_2(PO_4)_3$ Nanocrystalline Alluaudites as Prospective Cathodes
for Sodium-Ion Batteries*

Martyna Jankowska _ Poland

12:20 – 12:45 BREAK



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POSTER Presentations – part I

12:45 – 13:00

Socio & Econophysics View on Population Changes in Industrial Revolution Era

Agata Angelika Sojecka _ Poland

13:00 – 13:15

Phase Behaviour of Twist-Bend Nematic Phase

Maha Zid _ Slovenia

13:15 – 13:30

Optimization of Liquid Crystal Materials for Photo- and Thermomechanically Responsive Elastomers

Milena Ježak

13:30 – 13:45

Visualizing Order Parameter Spaces And Topological Defects in Ordered Media

Jaka Sgerm, Marcel Kodrin _ Slovenia

13:45 – 14:00

Non-linear dielectric response for Menthol Solutions

Kewin Żmigrodzki _ Poland

14:00 – 14:15

Liquid Droplet Simulations for Material Exploration

Tim Javornik _ Slovenia

14:15 – 14:30

Dielectric Properties of Reverse Micelles Formed by Nonionic Surfactants

Sara Helscher _ Poland

14:30 – 14:45

Synthesis, Properties, and Enantioseparation of Four-Ring Racemic Smectics

Edyta Wojda _ Poland

14:45 – 15:00

Phase Transitions and Electrical Properties Of High-Pressure High Temperature Treated Bismuth Oxide-Based Material

Aleksander Szpakiewicz-Szatan _ Poland

15:00 – 15:15 BREAK



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POSTER Presentations – part II

15:15 – 15:30

Exceptional Points in Non-Hermitian Metasurfaces

Anja Ribaš _ Slovenia

15:30 – 15:45

Synthesis and Investigation of Mesophase, Optical, and Spectral Properties of Thieno [3,2-b]thiophene-Based Liquid Crystals.

Małgorzata Bakiera _ Poland

15:45 – 16:00

Self-assembled benzo[b]thiophene liquid crystals with designed dielectric properties for GHz applications

Agnieszka Mieczkowska _ Poland

16:00 – 16:15

Fabrication of complex-shaped colloids via selective microfluidic trapping

Tine Krajnc _ Slovenia

16:15 – 16:30

Liotropic Phases of DNA

Melani Potrč _ Slovenia

16:30 – 16:45

In situ observation of the nanocrystallisation process in vanadate glasses in the XAS synchrotron experiment

Martyna Jankowska _ Poland

16:45– 17:00

Broadband Dielectric Spectroscopy Investigation of E7 Liquid Crystal with BaTiO₃ and C₆₀ Nanoparticles

Mateusz Kotowski _ Poland

SUMMARY & OUTLOOK



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Scientific Committee of the 4th PSIS on SM 2026

“Faces of Soft Matter”

Assist. Prof. Dr. Brigita Rožič – Institut “Jožef Stefan” | Jozef Stefan Institute, Slovenia

Red. Prof. Dr. Robert Repnik – Univerza v Mariboru | University of Maribor, Slovenia

Prof. dr hab. Sylwester J. Rzoska – Institute of High Pressure Physics “Unipress” PAS, Poland



Organizing Committee of the 4th PSIS on SM 2026

“Faces of Soft Matter”

Agata Angelika Sojecka – University of Economics in Katowice, Poland

Melani Potrč – University of Maribor, Slovenia

Jakub Kalabiński – Institute of High Pressure Physics “Unipress” PAS, Poland

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