



International
Scientific
Conference of
the University
of Latvia

Magnetic Soft Matter

February 11, 2021

Join Zoom Meeting

Link will be sent separately

Programme

Times are given for Riga local time (GMT+2)

- 10:50 - 11:00 **Opening of seminar**
- 11:00 - 11:45 *Mahla Mirzaee-Kakhki, Adrian Ernst, Anna M. B. E. Rossi, Nico C. X. Stuhl-müller, Maciej Urbaniak, Feliks Stobiecki, Meike Reginka, Dennis Holzinger, Arno Ehresmann, Daniel de las Heras, Thomas M. Fischer, Applications of topological magnetic transport*
- 11:45 - 12:05 *Pietro Tierno, Antonio Ortiz-Ambriz, Helena Massana-Cid, Emergent col-loidal currents generated via exchange dynamics in a broken dimer state*
- 12:05 - 12:25 *Mikhail Krakov, Arthur Zakinyan, Anastasia Zakinyan, Regarding the nature of the dependence of the critical wavelength on the magnetic field at the instability of interface of miscible magnetic/non-magnetic fluids*
- 12:25 - 12:45 *Armin Kögel, Alexandra Völkel, Reinhard Richter, Calming the waves, not the storm: measuring the Kelvin-Helmholtz instability in a tangential magnetic field*
- 12:45 - 13:05 *Carlo Rigoni, Bent Harnist, Grégory Beaune, Jaakko V. I. Timonen, Ferroflu- idic Aqueous Two-Phase System with Ultralow Interfacial Tension, Instabilities and Pattern Formation*
- 13:05 - 13:20 **Break**
- 13:20 - 13:40 *Dmitry Chirikov, Andrey Zubarev, Pavel Kuzhir, Theoretical study of the flow of a ferrofluid in an oscillating magnetic field*
- 13:40 - 14:00 *Thiago Fiuza, Mitradeep Sarkar, Jesse C. Riedl, Andrejs Cēbers, Fabrice Cousin, Gilles Demouchy, Jérôme Depeyrot, Emmanuelle Dubois, Frédéric Gelebart, Guillaume Meriguet, Régine Perzynski, Véronique Peyre, Under-field ther- modiffusion anisotropy in Ionic-Liquid-based ferrofluids*
- 14:00 - 14:20 *Ingo Rehberg, Reinhard Richter, Stefan Hartung, Graphical Magnetogranu- lometry*
- 14:20 - 14:40 *Alexey O. Ivanov, Olga B. Kuznetsova, Philip J. Camp, Dynamic magne- togranulometry of ferrofluids*
- 14:40 - 15:00 *Yuri Dikansky, Anna Ispiryan, Stanislav Kunikin, Susceptibility of water- based ferrofluid at various temperatures*

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- 15:00 - 15:20 *Matus Molcan, Katarina Paulovicova, Milan Timko, Peter Kopcansky*, **Characterization of magnetic nanosystems with a focus on magnetic hyperthermia**
- 15:20 - 15:40 **Break**
- 15:40 - 16:00 *Andrey Yu. Zubarev, Dmitri Chirikov, Dmitry Zablotsky, Mikhail Maiorov, Slavko Kralj, Hans J. Herrmann*, **Viscoelastic properties of ferrofluids with multicore particles**
- 16:00 - 16:20 *Fereshteh Sohrabi, Tomy Cherian, Carlo Rigoni, Olli Ikkala, Jaakko Timonen*, **Electroferrofluids with Non-Equilibrium Voltage-Controlled Magnetism, Interfaces, and Patterns**
- 16:20 - 16:40 *Peter Kopcansky, Natalia Tomasovicova, Veromika Lackova, Milan Timko*, **Liquid crystals doped by magnetic nanoparticles**
- 16:40 - 17:00 *Martins Bricis, Viesturs Sintis, Andrejs Cēbers*, **Why do hematite cube chains contain kinks?**
- 17:00 - 17:20 *Artis Brasovs, Kostya Kornev*, **Magnetic Rotational Spectroscopy with Nanorods as a Tool for Characterization of Insect Blood**
- 17:20 - 17:40 *Andrejs Cēbers, Abdelqader Zaben, Guntars Kitenbergs*, **Ferromagnetic swimmers: experiment, theory and simulation**
- 17:40 - 18:00 *Andris P. Stikuts, Régine Perzynski, Andrejs Cēbers*, **Simulations of magnetic droplet dynamics in a rotating field**
- 18:00 - 18:20 *Aigars Langins, Andris P. Stikuts, Andrejs Cēbers*, **Rosensweig instability dynamics of magnetic fluid droplets in rotating field**