

## Alpine NMR Workshop

(Frontiers of Magnetic Resonance: Applications to Nano- and Microscopically Structured Systems)

Cluj-Napoca, September 20-22, 2024

The workshop is organized by the **Department of Physics and Chemistry/Faculty of Materials and Environmental Engineering** of the **Technical University of Cluj-Napoca** and continues a series of informal meetings organized in Hirschegg (Austria), Bled (Slovenia) and Matrafured (Hungary).

The lectures and the accommodation of all participants will take place in **Grand Hotel Napoca** (<https://hotelnapoca.ro/>), str. Octavian Goga 1, Cluj-Napoca, Romania.

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### Program

Friday, September 20		
9.00	Prof. <b>Yang Xia</b> Department of Physics, Oakland University, USA	What we have learned from the rabbit?
9.30	Prof. <b>Igor Serša</b> Jožef Stefan Institute, Ljubljana, Slovenia	Driven Equilibrium Spin-Echo Sequences in MR Microscopy
10.00	Prof. <b>Radu Fecete</b> Technical University of Cluj-Napoca, Romania	In vivo and in vitro <sup>1</sup> H NMR relaxometry and spectroscopy at 11.7 T using INSPIRE infrastructure. First experiments

<b>Coffee break</b>		
11.00	Prof. <b>Andrea Maria Chisnoiu</b> Iuliu Hatieganu University of Medicine and Pharmacy Cluj-Napoca, Romania	The Impact of dental erosion on adhesion of dual cure dental cements: an ultramicroscopic and nuclear magnetic resonance relaxometry study
11.30	<b>Kevin Lindt</b> Technical University Ilmenau, Germany	<sup>1</sup> H & <sup>2</sup> H NMR relaxation in PEO blends - influence of molecular weight
12.00	<b>Rok Peklar</b> Jožef Stefan Institute, Ljubljana, Slovenia	Density mapping of Lithium electrodeposits using MRI
<b>13.00: Lunch</b>		
15.00	Prof. <b>Esteban Anardo</b> FaMAF - Universidad Nacional de Córdoba e IFEG-CONICET, Córdoba, Argentina	NMR Relaxometry: from liquid crystals to phospholipid membranes
15.30	Dr. <b>Carlos Mattea</b> Technical University Ilmenau, Germany	Magnetic resonance for studying dynamics in some soft matter materials
<b>Coffee break</b>		
16.30	Dr. <b>Bulat Gizatullin</b> Technical University of Ilmenau Germany	Strange NMR relaxation in conventional silica
17.00	<b>Amalia Taut</b> Technical University of Cluj- Napoca, Romania	Synthesis and characterization of microcapsules for self-healing dental resins
<b>18. 30: Dinner</b>		
<b>Saturday, September 21</b>		
9.00	Prof. <b>Siegfried Stapf</b> Technical University Ilmenau, Germany	Can we still mix and mingle despite phobic interactions?
9.30	Dr. <b>Monika Keri</b> University of Debrecen, Hungary	The role of test liquids in pore morphology characterization
10.00	<b>Vanda Papp</b> University of Debrecen, Hungary	Effect of pozzolans on the early hydration and structure of Portland cement by means of NMR
<b>Coffee break</b>		
11.00	Dr. <b>Sergiu-Mihai Alexa-Stratulat</b> "Gheorghe Asachi" Technical University of Iasi, Romania	Application of low-field NMR technique for the assessment of pore structure in cement pastes with natural zeolites
11.30	Dr. <b>Tamás Péter Kertész</b> University of Debrecen, Hungary	Geopolymerization process studied by TD-NMR
12.00	<b>Kaja Tušar</b> Jožef Stefan Institute, Ljubljana, Slovenia	How to develop software for complex scientific and medical devices?

**13.00: Lunch**

15.00	<b>David Nyul</b> University of Debrecen, Hungary	Graphene doped carbon aerogels: characterization and application
15.30	<b>Dr. Mihai Marius Rusu</b> Technical University of Cluj- Napoca, Romania	Printable mortars, modified with carbon
16.00	<b>Prof. Ioan Ardelean</b> Technical University of Cluj- Napoca, Romania	FFC NMR relaxometry studies of cement-based composites suitable for 3D printing

**18. 00: Dinner**

**Sunday, September 22**

9-11	Discussions/Conclusions
11-18	Excursion