EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY

Conference on achievements and perspectives of NMR relaxometry

CA-15209

15.03.2021 - Monday

9.00 – 9.15 **Danuta Kruk**
Introduction

9.15-9.30 **Jerzy Jaroszewski**
Vice-rector for science policy and research of University of Warmia and Mazury in Olsztyn
Welcome and summary

9.30 – 10.00 **Gianni Ferrante**
Fast Field Cycling NMR relaxometry – overview

10.00 – 10.30 **Lucia Calucci**
Achievements and pitfalls of FC NMR relaxometry in materials science: the experience of the Pisa Solid State NMR laboratory

10.30 – 11.00 **Silvia Pizzanelli**
FC NMR relaxometry of a metal-organic-framework: structural and dynamic insights

11.00 – 11.30 **Francesca Martini**
FC NMR of elastomers: effect of cross-linking on glassy and polymer dynamics

11.30 – 12.00 **Agathe Fanost**
How NMR relaxometry measurements help to understand particle interactions in tempera paint

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13.00 – 13.30 **Ulrich Scheler**
Rheo-NMR on a polymer melt - shear-induced chain ordering or loss of entanglements

13.30 – 14.00 **Graeme Stasiuk**
Development of Mn based MRI agents from a single pot template reaction

14.00 – 14.30 **Jinhong Chen**
NMR Intermolecular Dipolar Cross-Relaxation in Nano-Confined Fluids

14.30 – 15.00 **Lorenzo Tei**
Paramagnetic chelates embedded in nanogels as highly efficient MRI probes.

15.00 – 15.30 **Pierre Fouilloux**
Determination of mesh size distribution by relaxometry on polygalacturonic gels, comparison with rehological and neutron measurements

16.00 – 16.30 **Lenka Kubíčková**
Non-superparamagnetic iron oxide nanoparticles as a model system for relaxivity studies

16.30 – 17.00 **Fabio Carniato**
Mn(II) based Silica Nanoparticles as potential MRI probe

17.00 – 17.30 **Alan Gregorovič**
^{1}H–^{14}N cross-relaxation spectrum analysis in sildenafil and sildenafil citrate

17.30 – 18.00 **Maria Rosaria Ruggiero**
Assessment of tumour response to chemotherapy by in vivo fast field cycling relaxometry

18.00 – 18.30 **Carla Fraenza**
Relaxometry and diffusometry investigation of the deep eutectic solvent glyceline

18.30 – 19.00 **Valentina Domenici**
Perspective on NMR relaxometry and NMR relaxation studies on olive and other vegetable oils.

16.03.2021 – Tuesday

9.00 – 9.30 **Maria Beira**
Study of NMR paramagnetic relaxation enhancement in magnetic fluids

9.30 – 10.00 **Marie Devreux**
Relaxometric study of manganese complexes based on a pyclen structure as MRI contrast agents

10.00 – 10.30 **Simonetta Geninatti**
A new class of MRI contrast agent based on NMR Quadrupolar peaks.

10.30 – 11.00 **Janez Cerar**
NMR relaxometry study of dynamics in aqueous solutions of polyamines.

11.00 – 11.30 **Giacomo Parigi**
Pineapple juice as oral MRI contrast agent.

11.30 – 12.00 **Lionel M. Broche**
Progress on FFC at Aberdeen: robust in-vivo dispersion imaging.

12.00 – 12.30 **James Ross**
Title to be provided

12.30 – 13.00 **Ernst Rössler**
The benefit of measuring T_2 in addition to T_1

13.30 – 14.00 **Philippe Bodart**
Contribution of the dominant physico-chemical parameters to the proton spin lattice relaxation in wine

14.00 – 14.30 **Danuta Kruk**
NMR relaxometry insight into food science

14.30 – 15.00 **Philip Singer**
NMR relaxation and MD simulations in petrophysical systems

15.00 – 15.30 **Sophia Suarez**
Modulation of Aluminum Species Transport in AlCl3 Deep Eutectic Solvents (DESs).

15.30 – 16.00 **Elena Piacenza**
A multivariate statistical and relaxometry approach to study the provenance and traceability of dairy products

16.00 – 16.30 **Jean-Pierre Korb**
Characterizing the surface dynamics of liquids in porous materials by FFC-NMR relaxometry

16.30 – 17.00 **Pelin Pocan**
Use of Different NMR Techniques to Characterize Gelatin Based Soft Candies

17.00 – 17.30 **Mecit Oztop**
Challenges of FFC-NMR for Food Applications

17.30 – 18.00 **Berkay Berk**
Monitoring Honey Crystallisation by TD-NMR

18.00 – 18.30 **Barış Özel**
Understanding the Water Dynamics in Composite Whey Protein Hydrogels

18.30 – 19.00 **Selen Guner**
Effect of Fat Content on the Crystallization of Milk and Cheese Powders by Solid Echo and Magic Sandwich Echo Sequences

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17.03.2021 Wednesday

9.00 – 9.30 **Pär Håkansson**
Model comparisons and developments for complex liquids, a way forward for relaxometry?

9.30 – 10.00 **Evrim Umut**
Water dynamics in inulin based hydrogel microparticles

10.00 – 10.30 **Silvio Aime**
Relaxometry for the development of innovative diagnostic tools in medicine.

10.30 – 11.00 **Pascal Fries**
From intense to ultra-low field NMR relaxometry in Grenoble. Which outlook after forty years of pedestrian approach?

11.00 – 11.30 **Jordan Ward-Williams**
NMR Relaxometry as a Tool for Understanding Adsorption in Heterogeneous Catalysis

11.30 – 12.00 **Ioan Ardelean**
Low-field NMR relaxometry as a tool for designing new cement based materials

12.00 – 12.30 **Pavel Kadeřávek**
Intrinsically disordered domain of delta subunit of RNA polymerase from Bacillus subtilis studied by combination of high-resolution relaxometry and MD simulation

12.30 – 13.00 **Benno Meier**
The dissolution-DNP experiment - a very brief overview

14.00 – 14.30 **Ralf Ludwig**
MD simulations as a tool for dissecting molecular motions to explain NMR relaxation phenomena

14.30 – 15.00 **Paolo Lo Meo**
A new heuristic algorithm for the analysis of NMRD dispersion curves

15.00 – 15.30 **Syuzanna Esoyans**
A traditional Armenian vinification: clay-wine interaction followed by relaxometry

15.30 – 16.00 **David Faux**
Aqueous paramagnetic solutions

16.00 – 16.30 **Fabien Ferrage**
Relaxometry of macromolecules tumbling in solution: why bother

16.30 – 17.00 **Duarte de Mesquita e Sousa**
Designing low power FFC relaxometers: pathways and trends

17.00 – 17.30 **Esteban Anoardo**
ICE lubricant analysis by NMR relaxometry

17.30 – 18.00 **Alessandro Lascialfari**
NMR results and perspectives on molecular nanomagnets

18.30 – 19.00 **Manuel Mariani**
Title to be provided