



UNIVERSITATEA TEHNICĂ
DIN CLUJ-NAPOCA



Alexander von Humboldt
Stiftung/Foundation



Technische Universität Ilmenau

4th Transylvanian NMR Workshop:
**“Frontiers of Magnetic Resonance Applications to Nano- and
Microscopically Structured Systems”**

Cluj-Napoca, Romania
September 27 – 29, 2013
Fullton Hotel, str. Sextil Puscariu nr. 10, Cluj-Napoca

Jointly organized by

Physics Department of the Technical University of Cluj-Napoca (Romania)
and Fachgebiet TPII / Polymerphysik, Technische Universität Ilmenau (Germany)

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Program

The lectures will be held at the Technical University of Cluj-Napoca, str. Baritiu 26-28 (5 minutes walk).

26-09-2013: arrival - registration

27-09-2013: lectures – lunch – lectures - dinner

28-09-2013: lectures – lunch – lectures - dinner

29-09-2013: discussions - excursion

30-09-2013: departure

See detailed program below

Contact persons

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Program

27-09-2013

	Name (affiliation)	Title of the presentation
08:00	Breakfast	
09:00	Prof. Dr. Siegfried Stapf (<i>TU Ilmenau</i>)	New molecular probes for the identification of maltene-asphaltene interaction in crude oil
09:30	Prof. Dr. Janez Stepisnik, (Univ. Ljubljana)	Study of translational dynamics in polymers and liquids by NMR MGSE method
10:00	Oliver Neudert (MPI Mainz)	FFC relaxometry enhanced by liquid state DNP
10:30	Pause	
10:45	Sergej Faletič (Univ. Ljubljana)	Time dependent diffusion spectroscopy
11:15	Dr. Igor Serša (Univ. Ljubljana)	Constant gradient MGSE: advantages and pitfalls
11:45	Dr. Ursa Mikac (Univ. Ljubljana)	MRI study of swelling behaviour and drug release from hydrophilic xanthan tablets
12:30	Lunch	
14:00	Dr. Radu Fecete (TU Cluj-Napoca)	Applications of 1D and 2D Laplace inversion analysis
14:30	Dr. Elmar Fisher (<i>Uniklinik Freiburg</i>)	Energy harvesting towards autonomous MRI detection
15:00	Prof. Dr. Yujie Li (<i>Harbin Institute of Technology, China</i>)	Characteristics of micro-scale fluid flow and the friction factor of the micro channels
15:30	Pause	
15:45	Amin Ordikhani (TU Ilmenau)	NMR relaxation and diffusion study of ionic liquids
16:15	Dr. Carlos Mattea (TU Ilmenau)	Ionic liquids in gelatin films
17:15	Free time until Dinner	

28-09-2013

08:00	Breakfast	
09:00	Prof.dr. Apostolos Spyros (University of Crete, Greece)	NMR metabolomics in food analysis, authentication and quality control
09:30	Dr. Codruta Badea (<i>TU Cluj-Napoca</i>)	Temperature effects on cement hydration via FFC NMR relaxometry
10:00	Sergiu Muncaci (<i>TU Cluj-Napoca</i>)	FFC NMR relaxation of polar and nonpolar molecules confined inside porous samples with magnetic impurities
10:30	Pause	
10:45	Stanca Boboia (TU Cluj-Napoca)	Applications of NMR relaxometry to dental materials

11:15	Marius Simina (Univ. Lund, Sweden)	Dissolution DNP NMR in The Brains. Apparatus and Methodology
11:45	Alexandra Pop (TU Cluj-Napoca)	Increasing the tensile strength of cement based materials
12:30	Lunch	
14:00	Prof. Dr. Coriolan Tiusan (TU Cluj-Napoca/NCRS France)	Spin and charge manipulation in mezosopic size spintronic devices for sensors and data storage applications
14:30	Dr. Mircea Bogdan (INCDTIM Cluj-Napoca)	Isotopic analysis of some Romanian wines by deuterium NMR and IRMS
15:00	Dr. Marioara Moldovan (UBB Cluj-Napoca)	New biomaterials with application in medicine
15:30	Pause	
15:45	Prof. Dr. Ioan Ardelean (TU Cluj-Napoca)	NMR relaxation and diffusion of liquids confined inside porous media with magnetic impurities
16:15	Prof. Dr. Rainer Kimmich (Uni Ulm, Germany)	NMR: new developments and perspectives
17:15	Free time until Dinner	

29-09-2013

08:00	Breakfast	
09:00	Discussion - Overview	
11:00	Excursion	