



## CONFERENCE PROGRAM

Tue 10/09		
8.30-12.30	<ul style="list-style-type: none"> <li>• Arrivals, welcoming</li> <li>• Late registrations</li> </ul>	
13:30-13:45	<b>Congress opening and Institutional address</b>	
	<b>Theory and Tutorial session opening – Chair S. STAPP</b>	
13.45-14.45	<b>Prof. Danuta Kruk</b> – (University of Warmia and Mazury in Olsztyn, Poland): "Theoretical background of relaxation ( $I(w)$ , $G(t)$ , different relaxation mechanisms."	<b>T1</b>
14.45-15.45	<b>Prof. Esteban Anoardo</b> – (LaRTE- FaMAF – Instituto de Física Enrique Gaviola) CONICET, Universidad Nacional de Córdoba, Argentina: "Hardware and technical issues, problems, limitations, hands-on experience FFC theoretical introduction."	<b>T2</b>
15.45-16.15	<b>Coffee break and Poster session</b>	
16.15-17.15	<b>Prof. Giacomo Parigi</b> – (Magnetic Resonance Center and Department of Chemistry, University of Florence): "Fast Field Cycling application (I): contrast agents and paramagnetic systems."	<b>T3</b>
17.15-18.15	<b>Prof. Pellegrino Conte</b> – (Department of Agricultural, Food and Forestry Sciences, University of Palermo): "Fast Field Cycling application (II): environmental topics."	<b>T4</b>
Wed 11/09		
8.30-8.45	<b>Welcoming - Scientific program presentation</b> Chair: <b>G. Ferrante &amp; A.L. Rollett</b>	
8.45-9.30	<b>Opening plenary lecture – Professor Emeritus Silvio Aime</b> (Department of Molecular Biotechnology and Health Sciences – University of Turin): "Through several decades of FFC NMR relaxometry, from research to applications and beyond... <i>Quo Vadis Relaxometry?</i> "	<b>PL1</b>
9.30.-10.15	<b>Invited lecture - Eva Jakab Toth</b> (Centre de Biophysique Moléculaire – CNRS, Orléans, France): "Towards safer and more specific MRI agents."	<b>IL1</b>
10.15-10.30	Oral presentation – <b>Marco Ricci</b> (Department of Science and Technological Innovation of the University of Eastern Piedmont "A. Avogadro", Alessandria, Italy): "Paramagnetic chelates embedded in nanogels as MRI probes."	<b>O1</b>
10.30 -10.45	Oral presentation – <b>Giacomo Parigi</b> (Magnetic Resonance Center and Department of Chemistry, University of Florence): "NMR Relaxometry of paramagnetic proteins as MRI contrast agents."	<b>O2</b>
10.45-11.15	<b>Coffee break and Poster session</b> Chair <b>E. Anoardo &amp; D. Brougham</b>	
11.15-11.30	Oral presentation – <b>Quoc Lam Vuong</b> (University of Mons, Belgium): "Theory of proton relaxation induced by superparamagnetic nanoparticle: a classical approach to NMRD."	<b>O3</b>
11.30-11.45	Oral presentation – <b>Adam Kubrak</b> (Magnetic Resonance Center and Department of Chemistry, University of Florence):	<b>O4</b>



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13<sup>th</sup> conference on  
**Fast Field Cycling  
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	“Relaxometric studies to reveal potential theranostic properties of human transthyretin conjugated with GD(iii) complexes.”	
11.45-12.15	<b>Keynote lecture – Lionel Broche</b> (School of Medicine, Medical Sciences and Nutrition - University of Aberdeen, Scotland): “FCI hardware and applications.”	<b>KL1</b>
12.15-12.30	Oral presentation – <b>Faisal Sheraz Shah</b> (University of Warmia and Mazury in Olsztyn, Poland): “Spin Relaxation Dynamics in Haemoglobin Solutions: A Study of Molecular Interactions.”	<b>O5</b>
12.30-12.45	Oral presentation – <b>Kahinga Kamau</b> (University of Warmia and Mazury in Olsztyn, Poland): “NMR insights into trypsin’s molecular dynamics.”	<b>O6</b>
12.45-13:00	Oral presentation – <b>Evrin Umut</b> (Dokuz Eylul University, School of Healthcare, Department of Medical Imaging Techniques, Turkey): “slow diffusion in sucrose hydrogel microparticles as potential sustained drug delivery vehicles.”	<b>O7</b>
13:00-14:00	<b>Lunch</b>	
	<b>Chair D. Faux &amp; A. Strate</b>	
14.00-14.45	<b>Invited lecture: Carlos Mattea</b> (Technische Universität Ilmenau, Germany): “Fast Field Cycling studies of molecular dynamics in soft matter materials.”	<b>IL2</b>
14.45-15.00	Oral presentation – <b>Emilia Pelegano-Titmuss</b> (Hunter College – CUNY, New York): “Type IV Eutectic Electrolytes for Lithium-Ion Batteries.”	<b>O8</b>
15.00-15.15	Oral presentation – <b>Paolo Arosio</b> (Department of Physics, University of Milan): “Modulation of the nuclear relaxation properties in iron oxide core-shell nanoparticles.”	<b>O9</b>
15.15-15.30	Oral presentation – <b>Giselle de Araujo Lima e Souza</b> (Hunter College – CUNY, New York): “Understanding ion dynamics in boron nitride ionogel electrolytes.”	<b>O10</b>
15.30 –16.00	<b>Keynote lecture – Villiam Bortolotti</b> (Department of Civil, Chemical, Environmental and Materials Engineering, University of Bologna): “Introduction to the FFC NMR relaxometry applied to confined fluid”	<b>KL2</b>
16.00-16.30	<b>Coffee break and Poster session</b>	
	<b>Chair C. Mattea &amp; J. Ward-Williams</b>	
16.30-16.45	Oral presentation – <b>Elzbieta Masiewicz</b> (University of Warmia and Mazury in Olsztyn, Poland): “ <sup>1</sup> H NMR relaxometry and a variety of “simple” ionic liquids.”	<b>O11</b>
16.45-17.00	Oral presentation – <b>Anne Strate</b> (University of Rostock, Germany): “Exploring rotational and translational dynamics in ionic liquids: Insights from FFC NMR relaxometry and MD simulations.”	<b>O12</b>
17.00-17.15	Oral presentation – <b>Corentin Boulogne</b> (University of Lorraine, France): “NMR methods to characterize structure and dynamics of supramolecular hydrogels.”	<b>O13</b>
17.15-17.30	Oral presentation – <b>Bulat Gizatullin</b> (Technische Universität Ilmenau, Germany): “Anomalous <sup>1</sup> H and <sup>2</sup> H NMR relaxation in conventional porous silica.”	<b>O14</b>
17.30-17.45	Oral presentation – <b>Anastasia Nagmutdinova</b> (Department of Civil, Chemical, Environmental and Materials Engineering, University of Bologna): “Cement hydration of a different composition followed by FFC NMR.”	<b>O15</b>
18.00–20.00	<b>Excursion (optional)</b> – Guided walking evening tour Palermo Historical center	



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Thu 12/09		
8.30-8.45	<b>Welcoming - Scientific program presentation</b> <b>Chair R. Anedda &amp; S. Baroni</b>	
8.45-9.30	<b>Invited lecture - Mecit Halil Oztop</b> (Department of Food Engineering, Middle East Technical University, Turkey): "Can FFC NMR Relaxometry Substitute Conventional Food Analysis Techniques?"	<b>IL3</b>
9.30-9.45	Oral presentation – <b>Madeleine Rhodes</b> (University of Aberdeen, Scotland): "Surface topology of fibrin network from FFC-NMR dispersion profiles."	<b>O16</b>
9.45-10.00	Oral presentation – <b>Tomaž Apih</b> (J. Stefan Institute, Slovenia): "Cross relaxation spectroscopy on Fast-Field Cycling Relaxometer"	<b>O17</b>
10.00-10.15	Oral presentation – <b>Sigfried Stapf</b> (Technische Universität Ilmenau, Germany): "Relaxation, diffusion, and DNP approach to binary liquids in porous glass: to mix or to demix?"	<b>O18</b>
10.15-10.30	Oral presentation – <b>Anne Laure Rollet</b> (PHENIX – Sorbonne University, Paris, France) "Evidence of the change of transport mechanism in ionic liquids containing Li <sup>+</sup> and La <sup>3+</sup> ."	<b>O19</b>
10:30-11:00	<b>Coffee break and Poster session</b>	
<b>Chair G. Parigi &amp; E. Toth</b>		
11.00-11.30	<b>Keynote lecture – Roberto Anedda</b> (Porto Conte Ricerche srl, Alghero SS): "NMR relaxometry for dairy quality control: opportunities and challenges"	<b>KL3</b>
11.30-11.45	Oral presentation – <b>Zlansou Ruth Tan</b> (PHENIX- Sorbonne University, Paris, France): "Tips and tricks for investigating water proton dynamics in hydrogel/clay composite materials through Nuclear Magnetic Relaxation Dispersion (NMRD)."	<b>O20</b>
11.45-12.00	Oral presentation – <b>Simona Baroni</b> (Department of Molecular Biotechnology and Health Sciences, University of Turin): "Cancer assessment by relaxometry."	<b>O21</b>
12.00-12.15	Oral presentation – <b>Lyns Verel Che Dji</b> (University of Lorraine, France): "Longitudinal NMRD profile as a tool to characterize and predict the efficacy of phosphonate based-SPIONs as MRI contrast agents."	<b>O22</b>
12.15-12.30	Oral presentation – <b>Amnah Alamri</b> (University of Aberdeen, Scotland): "IN-VIVO and EX-VIVO detection of colorectal cancer at ultra-low field using Fast Field-Cycling methods."	<b>O23</b>
12:30-14:00	<b>Lunch</b>	
<b>Chair D. Kruk &amp; P. Lo Meo</b>		
14.00-14.40	<b>Invited lecture – Pellegrino Conte</b> (Department of Agricultural, Food and Forestry Sciences, University of Palermo): "Environmental applications of Fast Field Cycling NMR relaxometry."	<b>IL4</b>
14.40-15.00	Oral presentation – <b>Alessandro Nucera</b> (Department of Science and Technological Innovation of the University of Eastern Piedmont "A. Avogadro", Alessandria, Italy): "Relaxometric investigations of Fe(III)-based complexes as T <sub>1</sub> -weighted Contrast Agents."	<b>O24</b>
15.00-15.15	Oral presentation – <b>Giovanni Vito Spinelli</b> (Department of Mathematics, University of Bologna) "Advancing NMR Analysis: Deep Neural Network Solutions for Inverting NMRD Profiles with Quadrupolar Dips"	<b>O25</b>



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15:15-15:30	Oral presentation – <b>Stan Sykora</b> (Extra-Byte S.r.l.) “Evaluation of relaxometric data by rex: classical and modern procedures.”	<b>O26</b>
15.30-16.00	<b>Coffee break and Poster session</b>	
	<b>Panel discussion – Participation at the Round Table</b> <b>Chair: Dr. Manoj Nimbalkar</b>	
16.00-17.20	Dialogue with Invited speaker – Silvio Aime, Eva Toth, Carlos Mattea, Mecit Halil Oztop, Pellegrino Conte	
17.20-17.30	<b>Panel discussion conclusion</b>	
17.30-18.00	<i>Celebration of the 40th Stelar’s anniversary</i>	
18.45-19.00	Meeting on the way for a social dinner	
19.30-20.30	<b>Happy hour + Social dinner at Hotel Borsa</b>	
<b>Fri 13/09</b>		
8.30-8.45	<b>Welcoming - Scientific program presentation</b> <b>Chair P. Conte &amp; D. Chillura Martino</b>	
9.00-9.15	Oral presentation – <b>Danuta Kruk</b> (University of Warmia and Mazury in Olsztyn, Poland): “Understanding NMR relaxation theory – how to create new equations and what for?”	<b>O27</b>
9.15-9.30	Oral presentation – <b>Lucas Siemons</b> (Department of Chemistry, LBM, CNRS, École Normale Supérieure, PSL University, Sorbonne University, Paris, France): “Ultrafast High-Resolution Relaxometry from 100 $\mu$ T to 23.5 T to unravel internal motions in proteins and nucleic acids.”	<b>O28</b>
9.30-9.45	Oral presentation – <b>Michele Pierigé</b> (University of Pisa): “Effect of tackifying resins on SBR dynamics by means of <sup>1</sup> H Field cycling NMR relaxometry.”	<b>O29</b>
9.45-10.00	Oral presentation – <b>David Faux</b> (School of Mathematics and Physics, University of Surrey, UK): “Maximising value from Fast Field Cycling NMR with the 3TM software.”	<b>O30</b>
10:00-10:30	<b>Coffee break and Poster session</b>	
10.30-11.00	<b>Best poster award ceremony</b> Greetings	
11.00-11.50	Closing	