

## **52nd National Congress on Magnetic Resonance**

Verona 10-12 September 2025

## **Scientific Program**

#### Wednesday September 10th

9:00-14:00	Registration	
10:00-11:30	Bruker satellite meeting	
11:30-13:00	Jeol satellite meeting	
13:00-14:00	Bruker/Jeol Lunch	
14:00-14:30	Opening	
	Plenary session	
	Chair: M.R. Chierotti	
14:30-15:20	Plenary Lecture 1	
	GIDRM/GIRM gold medal award	
	Daniel O. Cicero (University of Rome "Tor Vergata") Exploring more than explaining: a journey	
	through GIDRM meetings and schools and the people who shaped it	
15:20-16:05	Plenary Lecture 2	
	Chair: S. Borsacchi	
	<b>Danielle Laurencin (University of Montpellier)</b> <sup>17</sup> O isotopic labeling using mechanochemistry:	
	recent advances and applications in high-resolution NMR	

#### 16:05-17:00 **Coffee break + Poster session (ODD abstract numbers)**

	Parallel session A	Parallel session B
	Chair: L. Russo	Chair: D. Laurencin
17:00-17:30	Rezaei-Ghaleh N. An NMR perspective on	Carignani E. Bulk and surface properties of lead
	biomolecar dynamics in dilute and condensed	halide perovskites by solid state NMR
	phases	
17:30-17:45	Diana D. Structural determinats driving the	Rosso C. "When SSNMR met pair distribution
	binding between pdz2 domain of zo1 protein and	function" a novel structure determination
	viral slim sequences	method of organic compounds
17:45-18:00	Santoro F. Targeting the tpp1-telomerase	Mauri M. Compatibilization process in
	complex: ligand discovery, experimental	clay/SEBS nanocomposites explored by TD-NMR
	validation, and therapeutic implications in cancer	
18:00-18:15	<b>Fabbian S.</b> Dissecting the structural complexity	Calucci L. Unravelling CO <sub>2</sub> dynamics and co <sub>2</sub> -
	of the ATP synthase OSCP subunit through	host interactions in metal-organic frameworks
	integrative NMR, SAXS and native MS	by solid state NMR
18:15-18:30	Turchi F. High-Resolution NMR Study of Ligand	Nardelli F. Dissecting the glass transition
	and $\text{Ca}^{\text{2+}}$ binding to the C-Terminal Region of $\alpha\text{-}$	temperature in anion exchange membranes
	Synuclein	using time-domain NMR spectroscopy

	Plenary session Chair: A. Randazzo	
18:30-18:45	Sponsorship Lecture (ABCS/nanalysis): A. F. G. Köring (Nanalysis Scientific Corp) Benchtop	
	NMR Applications in Forensic Analysis	
18:45-19:30	Plenary Lecture 3 Anna De Angelis (Salk Institute for Biological Studies) Fifty Shades of Suberin	

#### Thursday September 11th

	Plenary session	
	Chair: G. Parigi	
8:45-9:30	Plenary Lecture 4	
	Thomas Vosegaard (Aarhus University) Towards automated data analysis of nmr spectra using the	
	web platform EASYNMR	
9:30-9:45	Sponsorship Lecture (Bruker):	
	Benevelli F. (Bruker Italia) MAGNETIC RESONANCE Applied to Battery Research	
9:45-10:15	Chair: M.R. Chierotti Under 35 GIDRM	
	Andrea Cesari (University of Pisa) Solution state NMR toolbox: analytical approaches for small to	
	large molecular systems	
10:15-10:30	Sponsorship Lecture (Jeol):	
	Nishiyama Y. (JEOL Ltd.) Recent advances in fast MAS from technical progress to applications	
10:30-10:45	Sponsorship Lecture (Magritek/FKV):	
10:45-11:35	Coffee break + Poster session (EVEN abstract numbers)	

	Parallel session A Chair: M. Botta	Parallel session B Chair: M. D'Onofrio
11:35-12:05	<b>Boscolo Galazzo I.</b> Integrating magnetic resonance imaging and artificial intelligence: the future of diagnostics between innovation and precision	<b>Fusaro L.</b> Study of the crystallization of simple organic salts using multinuclear NMR in the liquid state
12:05-12:20	<b>Romiti C.</b> Orange-derived extracellular vesicles for drug delivery: isolation and labelling with MRI contrast agents for in vivo tracking	<b>Ceccon</b> A. Probing Self-Association of (+)- Catechin Coupled with Hydrogen-Deuterium Exchange by Solution NMR Spectroscopy
12:20-12:35	<b>Tamanti A.</b> Layer-wise analysis of cortical and periventricular alterations in multiple sclerosis using multiparametric MRI	<b>Petrone M.</b> A novel structure determination method of organic compounds

#### 12:35-13:55 Lunch + Poster session (ODD abstract numbers)

	Plenary session Chair: S. Geninatti Crich	
13:55-14:40	Plenary Lecture 5 Mauro Botta (University of the Eastern Piedmont)	
	Multinuclear and multifrequency NMR techniques for probing water exchange in paramagnetic complexes	
14:40-14:55	Sponsorship Lecture (Stelar):	

	Chair: L. Ragona Segre-Capitani Fellowship	
14:55-15:10	Eleonora Truzzi (University of Modena and Reggio Emilia)	
	Application of NMR spectrometry on the study of lipid oxidation and antioxidant capacity of essential	
	oils and extracts from agri-food wastes on	
15:10-16:00	Coffee break + Poster session (EVEN abstract numbers)	
16:00-18.30	GIDRM assembly + announcement of poster competition winner	
19:30	social dinner	

#### Friday September 12th

Thuay september 12		
Plenary session		
Chair: D.O. Cicero		

8:45-9:30	

### Plenary Lecture 6

# Flaminia Cesare Marincola (University of Cagliari) NMR spectroscopy for food analysis: perspectives and applications in dairy products

	Parallel session A Chair: F. Cesare Marincola	Parallel session B Chair: T. Vosegaard
9:30-10:00	<b>Gallo V.</b> Validated nmr methodologies: a decade of harmonization towards collaborative diagnostic applications	<b>Saielli G.</b> Computational nmr spectroscopy: from heavy atoms to bulk liquid phases
10:00-10:15	<b>Grasso D.</b> Monitoring tyrosine metabolism in alkaptonuria: an NMR-based approach to evaluate nitisinone efficacy and off-target effects	<b>Lelli M.</b> Efficient polarizing agents for high field and fast mas DNP
10:15-10:30	<b>Molteni I.</b> Combining NMR spectroscopy and mass spectrometry for the metabolic profiling of solid matrices	<b>Kubrak A.</b> Insight into internal motions and interactions of biomolecules in blood serum using high-resolution relaxometry
10:30-10:45	<b>Marino C.</b> NMR metabolomic characterisation of lipedema tissues: a multi-omics study	<b>Napolitano E.</b> NMR metabolomics analysis of mouse brain extracts with differential DDO expression using parahydrogen-induced hyperpolarization
10:45-11:00	<b>Scioli G.</b> Metabolic diversity of different broccolirabe landraces (Brassica rapa l. subsp. sylvestris) from different area of Puglia	<b>Mascitti B.</b> Solution state Overhauser DNP enabled by functionalized gold nanoparticles

11:00-11:30 **Coffee break** 

	Parallel session A Chair: A. De Angelis	Parallel session B Chair: M. Assfalg
11:30-12:00	<b>Airoldi C.</b> An NMR toolkit for the identification and development of biomolecular tools with diagnostic and therapeutic applications	<b>Silipo A.</b> Carbohydrates as keywords in the molecular dialogue
12:00-12:15	<b>Cortese F.</b> . Urinary NMR fingerprinting of muscle invasive bladder cancer: a step toward safer prognosis	<b>Trivellato D.</b> A multi-technique approach illuminates the conformational changes of the repeat domain of tau protein upon ubiquitination
12:15-12:30	<b>Mimmi M.</b> Experience report on ASICS: automated metabolite quantification in 1D- <sup>1</sup> H NMR of tissue extracts	<b>Parafioriti M.</b> Deciphering heparan sulfate recognition by SARS-COV-2 spike protein variants through nmr and molecular dynamics simulations
12:30-12:45	<b>Petrella G</b> Merging NMR fingerprinting and profiling to uncover the metabolic impact of synthetic opioids	<b>Bolognesi T.</b> Probing the role of structural disorder in SARS-COV-2 N by NMR: insights into polyanion binding mechanisms
	Plenary session	
	Chair: L. Ragona and M.R. Chierotti	
12:45-13:25	Poster competition winner lectures	
13:25-13:30	Closing	
13:30-14:30	Lunch	