GRUPPO ITALIANO DISCUSSIONE RISONANZE MAGNETICHE

53RD NATIONAL CONGRESS ON MAGNETIC RESONANCE

CASERTA 9-11 SEPTEMBER 2026

SCIENTIFIC PROGRAM

Wednesday September 9th

9:00-14:00	**Registration**
10:00-11:30	**Jeol satellite meeting**
11:30-13:00	**Bruker satellite meeting**
13:00-14:00	**Bruker/Jeol Lunch**

14:00-14:30	**Opening (Room A2)**
	Plenary session (Room A2) **Chair: A. Mucci & M. R. Chierotti**
14:30-15:20	**Plenary Lecture 1** **GIDRM/GTRM gold medal award** **Giovanna Musco (Biomolecular NMR Unit, IRCCS Ospedale San Raffaele)** ***Do we still need N(avigating) M(ysterious) R(elationships)?***
	Plenary Lecture 2 **Chair: V. Righi**
15:20-16:05	**Iola Duarte (University of Aveiro)** ***Metabolic phenotyping of biomimetic 3D cell models using NMR-based metabolomics***

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

	Parallel session A (Room A2) **Chair: V. Righi**	**Parallel session B (Room B2)** **Chair: R. Fattorusso**
17:00-17:30	**Veronesi M.** NMR in drug discovery: from hit identification to Exo-metabolomics	**Mauri M.** Time-Domain NMR: mobility and interfacial phenomena across multiple scales
17:30-17:45	**Marino C.** Untargeted ^{1}H NMR-based metabolomics and high-pressure liquid chromatography analyses reveal sexual dimorphism in the serum metabolic profiles of patients with different genetic forms of Parkinson's disease	**Petrella G.** An HMBC-based J-modulation sequence for the measurement of nJHC coupling constants: application to CORROLE systems
17:45-18:00	**Krid M.A.R.** Advancing Food Analysis: Amino Acid Quantification by NMR and Deep Learning	**Petrone M.** Suppressing proton competition to reveal intrinsic Zn(II) chelation in L-carnosine mimics by solution NMR
18:00-18:15	**Gallo A.** Exploring the urinary metabolomic fingerprint of human cytomegalovirus: a ^{1}H-NMR study on congenitally infected newborns	**Schiavina M.** The Synergy of Multiple Receivers and Heteronuclear Detection to Draw a Complete Picture of Intrinsically Disordered Proteins in Action
18:15-18:30	**Vigni G.** Integrated chemometric analyses of NMR, HPLC-MS and IRMS data for geographical origin authentication	**Yang Zhou A.** Next-Generation EPR: Combining High-Performance Q Band Instrumentation with Artificial Intelligence Enhanced Spectral Processing

	Plenary session (Room A2) **Chair: S. Borsacchi**
18:30-18:45	**ABCS/Nanalysis Sponsorship Lecture: V. Vanoli** ***Quantitative Characterization of Lignin by Benchtop ^{31}P NMR***
18:45-19:30	**Plenary Lecture 3** **Marina Carravetta (University of Southampon)** ***Solid state NMR on supported palladium nanoparticles***

Thursday September 10th

	Plenary session (Room A2) **Chair: L. Russo**
8:45-9:30	**Plenary Lecture 4** **Vincenzo Venditti (Iowa State University)** ***Beyond Structures: Solution NMR as a method for resolving dynamic mechanisms across biological and heterogeneous catalysts***
9:30-9:45	**Jeol Sponsorship Lecture: M.J. Smith** ***Improving the detection limits***
	Under 35 GIDRM Award (Room A2) **Chair: M. Chierotti**
9:45-10:15	**Gaia Meoni (University of Firenze)** ***NMR-based metabolomics: a journey between health and food***
10:15-10:30	**Bruker Sponsorship Lecture: M. Mayzel** ***Spatially resolved NMR spectroscopy: principles and applications***
10:30-11:20	**Coffee break + Poster session (EVEN abstract numbers)**

	Parallel session A (Room A2) **Chair: D. Lalli**	**Parallel session B (Room B2)** **Chair: G. Musco**
11:20-11:50	**Carniato F.** Investigation of transition metal-based MRI probes: a combined ^{1}H NMR relaxometry, EPR and computational study	**Isernia C.** A glimpse in the metal ion selectivity rules: Zn(II), Cd(II) and Co(II) interplay with different protein coordination spheres in determining variable thermal stability and folding scenarios
11:50-12:05	**Scarciglia A.** A Rare Earth Elements recovery strategy using natural dioptase and ^{1}H-NMR relaxometry	**Ciabini C.** Monitoring disordered protein-ligand interactions through NMR
12:05-12:20	**Micocci S.** Visualize & Destabilize: boronated carboranyl-curcuminoids as theranostic candidates in Alzheimer's MRI-guided Neutron Capture Therapy	**Santoro F.** Integrating NMR structure determination and ligand optimization of the CIAP2-BIR1 protein
12:20-12:35	**Caporale A. S.** The association between grey matter microstructural characteristics and cerebral oxidative metabolism is altered in Multiple Sclerosis	**Macchia L.** NMR mapping of Cyclophilin D pockets using ultra-low molecular weight fragments
12:35-12:50	**Piña Marcosa J. N.** Targeted liposomes for combined boron neutron capture therapy and MRI visualization in non-small cell lung cancer	**Lippi C.** NMR-based solvent paramagnetic enhancement experiments on IDPs
12:50-14:10	**Lunch + Poster session (ODD abstract numbers)**	

	Plenary session (Room A2) **Chair: L. Russo**
14:10-14:55	**Plenary Lecture 5** **Simonetta Geninatti Crich (University of Torino)** ***Fast Field-Cycling Relaxometry as a Tool to Investigate Pathological States through Water Dynamics in Tissues***
14:55-15:10	**Stelar Sponsorship Lecture: I. Sarwara** ***Molecular Dynamics of Animal- and Plant-Based Cheese Matrices via Temperature-Dependent FFC-NMR Relaxometry***
15:10-15:25	**Magritek Sponsorship Lecture: L. Bottalico** ***Unlocking New Capabilities in Benchtop NMR: High-Resolution Analysis at 100 MHz***
	Segre-Capitani Fellowship **Chair: L. Ragona**
15:25-15:40	**Simone Fabbian (University of Padova)** ***Oncogenic non-coding RNA targeted by small molecules: a NMR-based approach***
15:40-17:00	**Coffee break + Poster session (EVEN abstract numbers)**
16:15-17:00	**GTRM assembly (Room A2)**
17:00-19.00	**GIDRM assembly + announcement of poster competition winners**
19:30	**social dinner**

Friday September 11th

	Plenary session (Room A2) Chair: E. Carignani
8:45-9:30	Plenary Lecture 6 Roberto Gobetto (University of Torino) *Solid State NMR tools in the evaluation of weak interactions*

	Parallel session A (Room A2) Chair: A. Randazzo	Parallel session B (Room B2) Chair: D. Lalli
9:30-10:00	**Mamone S.** Rational optimization of [1-^{13}C] pyruvate sabre hyperpolarization through catalyst design, kinetic modelling, and temperature control	**Proietti N.** Single-sided NMR: strengths and weaknesses
10:00-10:15	**Mosca F.** Structural investigation of Braun protein transpeptidation inhibitors in Gram-negative bacteria	**Pierigè M.** Accessing dynamics of sbr compounds by variable temperature ^{1}H FC NMR and DFMSE experiments
10:15-10:30	**Gado I.** RNA mimic in HUR-ligand studies: insights from STD-NMR and protein-based NMR techniques	**Conti L.** In-Situ Single-Sided NMR profiling to assess cleaning treatments on XI-Century wall paintings
10:30-10:45	**Cesaroni S.** Exploring ^{1}H-NMR data extraction potential in metabolomics: unveiling an opioid signature	**Ceccon A.** Reactive adduct intermediates and solvent-cage effects in azo-initiated oxidation of cinnamic acid derivatives revealed by solution NMR spectroscopy
10:45-11:00	**Parafioriti M.** Modulating heparanase activity with heparan sulfate mimetics: insights from NMR and molecular dynamics into structure–function relationships	**Napolitano E.** Metabolomic insights into the protective mechanisms of the NGF mutant CHF6467 in an Alzheimer's disease cell model
11:00-11:30	Coffee break	

	Parallel session A (Room A2) Chair: G. Malgieri	Parallel session B (Room B2) Chair: E. Carignani
11:30-12:00	**Fragai M.** NMR-based characterization for the design, stability studies, and delivery control of biopharmaceuticals	**Borsacchi S.** Probing structure, dynamics and light-induced effects in halide perovskites via Solid State NMR and NQR
12:00-12:15	**Dragone M.** A ^{19}F NMR structural characterization of selumetinib and trametinib β-cyclodextrin inclusion complexes	**Scarperi A.** Solid-State NMR insights into hydration, framework flexibility, and guest dynamics in calf-20
12:15-12:30	**Barbero M. T.** Structural and Dynamic features of diastereomeric (Deep) Eutectic Systems (DIADES)	**Sabena C.** ^{14}N Solid-State NMR quadrupolar products as quantitative probes of hydrogen-bond environments in pyridinic solids
12:30-12:45	**Bolognesi T.** NMR strategies for multidomain intrinsically disordered proteins: application to the SARS-CoV-2 nucleocapsid reveals structure, dynamics, and binding mechanisms	**Ghelardi A.** Structural insights into a new dual-drug co-crystal characterised by NMR crystallography and electron diffraction

	Plenary session (Room A2) Chair: L. Ragona & M. Chierotti
12:45-13:25	Poster competition winner lectures
13:25-13:30	Closing
13:30-14:30	Lunch