

JOINT ITALIAN-FRENCH MEETING ON MAGNETIC RESONANCE

MILAN, 27-30 SEPTEMBER 2022

SCIENTIFIC PROGRAM

Tuesday September 27st

9:00-13:00	Registration	
9:30-11:00	Jeol Satellite Meeting	
11:30-13:00	Bruker Satellite Meeting	
13:00-14:00	Lunch	
14:00-14:30	Opening	
	Plenary session. Chair: P. Sozzani	
14:30-15:15	D. Bryce (University of Ottawa) SIGMA HOLE INTERACTIONS STUDIED BY MULTINUCLEAR SOLID STATE MAGNETIC RESONANCE AND NUCLEAR QUADRUPOLE RESONANCE	
15:15-16:00	A. Webb (University of Leiden) LOW FIELD MRI: PHYSICS, ENGINEERING AND POLITICS	
16:00-16:20	Sponsorship Lecture (Stelar): Ph. R. Bodart (University of Burgundy) POLYGALACTURONIC GELS PROBED BY FAST FIELD CYCLING NMR	
16:20-16:30	IUPAC Presentation: S. Borsacchi	
16:30-17:30	Coffee break + Poster session 1 (ODD abstract numbers)	
	Parallel session A Chair: D. Bryce	Parallel session B Chair: A. Bifone
17:30-17:50	F. Pourpoint - PROBING OXYGEN EXCHANGE IN METAL-ORGANIC FRAMEWORKS AND THEIR WATER STABILITY USING ¹⁷ O NMR	D. Lalli - HIGH- AND LOW RESOLUTION NMR CHARACTERIZATION OF G ₄ AAZTA DERIVATIVES FUNCTIONALIZED WITH AMINO ACIDS
17:50-18:10	R. Chèvre - NMR SPECTROSCOPY, A GATEWAY FOR KINETICS AND STRUCTURE DETERMINATION OF CALCIUM CARBONATE HEMIHYDRATE	E. Gianolio - DESIGN OF MRI CONTRAST AGENTS: MATCHING ENHANCED RELAXIVITY AND STABILITY IN NEW Gd-HPDO ₃ A ANALOGUES
18:10-18:30	E. Carignani - NMR FOR THE STUDY OF DYNAMICS IN LEAD HALIDE PEROVSKITES: APPLICATIONS TO MIXED-CATIONS AND 2D PHASES	F. Guerroudj - NMR METHODS AND DEVICES FOR THE CHARACTERIZATION OF FLOWS AND TRANSFERS IN MILLI-CHANNELS
18:30-18:50	F. Bravetti - SOLID-STATE NMR-DRIVEN CRYSTAL STRUCTURE PREDICTION OF ORGANIC COMPOUNDS WITH AMBIGUOUS PROTON POSITION	R. Nasser Din - LANTHANIDE-CONTAINING POLYOXOMETALATES AS ENHANCED MRI CONTRAST AGENTS AT HIGH MAGNETIC FIELDS
18:50-19:10	A. Scarperi - STRUCTURE AND DYNAMICS OF CRYSTALLINE CARBIMAZOLE: COMBINATION OF SOLID STATE NMR, QUASIELASTIC NEUTRON SCATTERING, MOLECULAR DYNAMICS AND DFT	

Wednesday September 28nd

	Plenary session Chair: A. Barnes	
9:00-9:45	M. Leskes (Weizmann Institute of Science) PARAMAGNETIC METAL IONS DNP FOR BULK AND SURFACE SENSITIVITY IN INORGANIC SOLIDS	
9:45-10:15	P. Turano (University of Florence) NMR OF BIOMOLECULES: FROM VERY LARGE TO VERY SMALL (AND VICE VERSA)	
10:15-10:45	A. Bifone (University of Torino) TOWARDS HYPERPOLARIZATION WITH NITROGEN-VACANCY CENTERS IN DIAMOND	
10:45-11:40	Coffee break + Poster session 2 (EVEN abstract numbers)	
	Parallel session A Chair: P. Giraudeau	Parallel session B Chair: M. Leskes
11:40-12:00	A. Sobolev - NMR METABOLOMICS OF BRASSICA VEGETABLES: PRACTICAL IMPLEMENTATIONS IN AGRO-FOOD SUSTAINABLE SYSTEMS	M. Lelli - STRATEGIES FOR HIGH-TEMPERATURE AND FAST-MAS DYNAMIC NUCLEAR POLARIZATION
12:00-12:20	E. Dufourc - DYNAMIC SORTING OF MOBILE AND RIGID MOLECULES IN BIOMEMBRANES BY MAS ¹³ C-NMR	S. Mamone - PULSED PHIP-SAH METHODS TO PRODUCE HYPERPOLARIZED SUBSTRATES IN CLEAN WATER SOLUTIONS FOR BIOMEDICAL APPLICATIONS
12:20-12:40	G. Petrella - METABOLISM EVOLUTION OF PROSTATE CANCER CELLS DURING THE DEVELOPMENT OF CHEMORESISTANCE	T. Georges - INVESTIGATIONS OF Ca ²⁺ AQUEOUS COMPLEXES THROUGH ⁴³ Ca MAS-DNP NMR OF VITRIFIED SOLUTIONS
12:40-13:20	GIDRM Under 35 award: V. Ghini and A. Vignoli - NMR-BASED METABOLOMICS: A JOURNEY IN ITS APPLICATIONS IN CANCER RESEARCH, FROM BIOFLUIDS TO CELLS	A. Frison - AN INNOVATIVE SOLVENT-FREE POLYMER SAMPLE PREPARATION METHOD FOR DNP SSNMR C. Praud - DEVELOPMENT OF ULTRAFast 2D NMR FOR DNP-HYPERPOLARISED METABOLIC MIXTURES
13:20-14:50	Lunch	
	Plenary session Chair: J. Martins	
14:50-15:35	A. Barnes (ETH Zurich, Switzerland) SPINNING SPHERES, IN-CELL NMR, AND MAGNET FABRICATION FOR PULSED DNP AND NMR >28 TESLA	
15:35-16:05	P. Giraudeau (University of Nantes, France) DISSOLUTION DYNAMIC NUCLEAR POLARIZATION OPENS NEW PERSPECTIVES FOR METABOLOMICS	
16:05-16:35	H. Ratiney (CNRS Lyon, France) IN VIVO MR SPECTROSCOPY QUANTIFICATION: LOCKS AND PROSPECTS	
16:35-16:55	Sponsorship Lecture (Jeol): M. Perez JEOL'S NMR SOFTWARE PLATFORM: JASON	
16:55-17:50	Coffee break + Poster session 3 (ODD abstract numbers)	
from 17:50	Social Event	

Thursday September 29rd

	Plenary session Chair: P. Turano	
9:00-9:45	M. Pons (University of Barcelona) INTEGRATING ORDER AND DISORDER AND SRC CELL SIGNALLING: THE NMR APPROACH	
9:45-10:15	R. Fattorusso (University of Campania) THE ROLE OF PROTEIN FOLDING MECHANISMS IN AMYLOID FIBRIL FORMATION	
10:15-10:45	F. Ochsenbein (CEA-Saclay, France) STRUCTURE-FUNCTION STUDIES AND INHIBITOR DESIGN OF HISTONE CHAPERONES	
10:45-11:40	Coffee break + Poster session 4 (EVEN abstract numbers)	
	Parallel session A Chair: F. Ochsenbein	Parallel session B Chair: M. Pons
11:40-12:00	G. Pintacuda - FAST BIOMOLECULAR NMR WITH FAST MAS (WITHOUT AND WITH DNP)	L. Fusaro - INVESTIGATION OF THE EXTRAORDINARY SELF-ASSEMBLY OF A SIMPLE ORGANIC SALT BY MULTINUCLEAR NMR IN LIQUID-STATE
12:00-12:20	A. Gallo - STRUCTURAL BASIS FOR THE INTERACTION BETWEEN A PEPTIDYL CARRIER PROTEIN AND CONDENSATION DOMAIN IN THE ENACYLOXIN HYBRID PKS-NRPS	I. Villa - STUDY OF MAGNETIC PROPERTIES AND SPIN DYNAMICS IN MOLECULAR MAGNETS WITH INTEGER SPIN VALUES
12:20-12:40	V. Bernard - MICRORNA SPONGING BY HuR	R.A. Salvino - NMR-BASED METHODS FOR PHARMACEUTICAL INDUSTRY: AN APPLICATION OF THE ANALYTICAL PROCEDURES LIFECYCLE CONCEPT
12:40-13:00	F. Munari - NMR OF PROTEIN-PROTEIN INTERACTIONS OF TAU, A KEY PLAYER OF ALZHEIMER'S DISEASE	S. Denis-Quanquin - CAPTURING THE DYNAMIC ASSOCIATION BETWEEN A TRIS-DIPICOLINATE LANTHANIDE COMPLEX AND A DECAPEPTIDE: A COMBINED PARAMAGNETIC NMR AND MOLECULAR DYNAMICS EXPLORATION
13:00-14:20	Lunch	
	Plenary session Chair: M. Geppi and C. Airoidi	
14:20-14:50	Winner of the GIDRM/GIRM Gold Medal 2022: P. Sozzani (University of Milano-Bicocca) THE DYNAMICAL WORLD OF SOLIDS	
	Chair: H. Ratiney	
14:50-15:35	D. Topgaard (University of Lund) MODEL FREE APPROACH TO THE INTERPRETATION OF RESTRICTED AND ANISOTROPIC SELF DIFFUSION IN MAGNETIC RESONANCE OF BIOLOGICAL TISSUES	
15:35-16:20	A. Gronenborn (University of Pittsburgh, USA) THE AWESOME POWER OF FLUORINE NMR - FROM DRUGS TO CELLS	
16:20-16:40	Sponsorship Lecture (Bruker): J. Coutant SOFTWARE NEWS - TOPSPIN, SMARTDRIVENMR AND BRUKER CHEMIST SUITE	
16:40-16:50	Sponsorship Lecture (Magritek): D. Bouillaud	
16:50-17:15	Coffee break	
17:15-19:15	Assemblies of GIDRM and GERM	
20:30-24:00	Social Dinner	

Friday September 30th

	Plenary session Chair: D. Topgaard	
9:00-9:45	J. Martins (University of Gent, Belgium) AN NMR VIEW ON ANTIMICROBIAL CYCLIC LIPOPEPTIDES FROM PSEUDOMONAS	
9:45-10:05	Sponsorship Lecture (Extrabyte) – S. Sykora DEVELOPMENTS IN THE EVALUATION OF DOSY DATA	
10:05-10:45	Best poster awards	
10:45-11:15	Coffee break	
	Parallel session A Chair: R. Fattorusso	Parallel session B Chair: A. Gronenborn
11:15-11:35	M.E. Di Pietro - PLAYING AROUND WITH HYDROPHOBIC (DEEP) EUTECTIC SOLVENTS: WHAT WE CAN LEARN FROM NMR	X. Falourd - REVISITING ^1H - \rightarrow ^{13}C POLARIZATION TRANSFER KINETIC TO INVESTIGATE INTERACTIONS IN POLYSACCHARIDE ASSEMBLIES
11:35-11:55	A. Ducroix - DYNAMICS OF WATER INSIDE BOEHMITE SUSPENSIONS PROBED BY FAST-FIELD CYCLING NMR	T. Cartlidge - PREDICTING SPIN RELAXATION IN POROUS MEDIA OF ARBITRARY COMPLEXITY
11:55-12:15	T. Poumeyrol - ^1H - ^1H RESIDUAL DIPOLAR COUPLING MEASUREMENT FROM MULTIPLE-QUANTUM BUILD-UP EXPERIMENTS AT LOW MAGNETIC FIELD IN RUBBER INDUSTRY	C. Lhoste - ONLINE MONITORING OF AN ORGANOCATALYTIC REACTION BY BROADBAND ULTRAFAST 2D NMR IN FLOW CONDITIONS
12:15-12:35	K. Bagheri - STATE OF CHARGE OF THE LI-ION BATTERY ELECTRODES FROM THE DISTORTION OF THE ^1H NMR SPECTRUM OF THE LIQUID ELECTROLYTE	A. Briot-Dietsch - UNTARGETED NMR ANALYSES OF PFAS IN POLLUTED ENVIRONMENTAL IN POLLUTED MEDIA
12:35-12:50	Closing	
12:50-14:00	Lunch	
	Satellite Event : NMR in industrial applications Chair: C. Marchioro	
14:00-14:25	F. Reniero - NMR ANALYSIS IN THE FRAME OF CUSTOMS CONTROLS	
14:25-14:50	V. Gallo - NMR-BASED COMMUNITY-BUILT ANALYTICAL SYSTEMS IN FOOD CONTROL AND QUANTITATIVE ANALYSIS	
14:50-15:15	F. Berti - NMR CHARACTERIZATION OF POLYSACCHARIDE-BASED VACCINES	
15:15-15:40	E. Moro - CONFORMATIONAL ANALYSIS IN DRUG DESIGN: A SYNERGIC APPROACH OF NMR & COMPUTATIONAL CHEMISTRY	
15:40-16:05	L. Duciel - RESCUE 3: VERSATILE DECISION-MAKING TOOL FOR NMR SPECTRAL ASSIGNMENTS OF PROTEINS	
16:05-16:30	D. Besghini - LF-TD-NMR FOR THE DEVELOPMENT OF PRINTING BLANKETS	