

XLVII NATIONAL CONGRESS ON MAGNETIC RESONANCE

L'AQUILA 11-13 SEPTEMBER 2019

UNIVERSITY OF L'AQUILA, ALAN TURING BUILDING

SCIENTIFIC PROGRAM

Wednesday September 11th

10:00-13:00	Registration	
10:30-12:30	Bruker satellite meeting	
12:45-14:00	Bruker Lunch	
14:00-14:30	Opening	
	Plenary session Chair: M. Geppi	
14:30-15:30	GIDRM/GIRM gold medal award M. Piccioli - FAST NUCLEAR RELAXATION, SLOW PROTEIN DYNAMICS AND OTHER ZEN TIME SCALES	
15:30-16:15	Plenary Lecture 1 H. Schwalbe - NEW NMR METHODS TO STUDY RNA STRUCTURE AND DYNAMICS	
16:15-17:20	Coffee break + Poster session 1	
	Parallel session A Chair: M. Piccioli	Parallel session B Chair: L. Calucci
17:20-17:50	D. Cicero - PLASMA PROTEIN BINDING OF DRUG CANDIDATES BY NMR	
17:50-18:10	V. Ghini - NMR APPROACHES IN METABOLOMICS: FROM CELLS TO BIOFLUIDS	F. Gabriele - ¹ H-NMR-RELAXATION AS A POWERFUL TOOL FOR ASSESSING CONSERVATION MATERIALS
18:10-18:30	S. Todisco - IMPORTANCE OF SAMPLE PREPARATION IN NON-TARGETED NMR ANALYSIS FOR THE TRACEABILITY OF ITALIAN TOMATOES	V. Di Tullio - SINGLE-SIDED NMR TO STUDY THE EFFECTS OF HUMIDITY AND WATER-BASED CLEANING SYSTEMS IN OIL PAINTINGS
	Plenary session Chair: M. Alecci	
18:30-19:00	Stelar Lecture J. Ward-Williams - PROBING INTERACTION STRENGTH AND LIQUID DYNAMICS IN NANOPOROUS OXIDES USING FAST FIELD CYCLING NMR	
19:00-19:45	Plenary Lecture 2 N.J. Shah - MULTIMODAL SIMULTANEOUS IMAGING: ADVANCES IN MR-PET-EEG 3T, 7T AND 9.4T IN HUMANS	

Thursday September 12th

	Plenary session Chair: P. Turano	
8:45-9:30	Plenary Lecture 3 J. Titman – DYNAMIC NUCLEAR POLARIZATION ENHANCED SOLID-STATE NMR STUDIES OF CATALYSTS AND CATALYST SUPPORTS	
9:30-10:00	Jeol Lecture M. Malon - EXTRACTING ACCURATE INFORMATION FROM NMR DATA	
10:00-10:30	Under 35 GIDRM award A. Conti – FOCUSED ULTRASOUND-MEDIATED DRUG DELIVERY THROUGH THE BLOOD-BRAIN AND BLOOD-TUMOR BARRIER	
10:30-11:20	Coffee break + Poster session 2	
	Parallel session A Chair: P. Jezzard	Parallel session B Chair: M. Chierotti
11:20-11:50	R. Wise – QUANTITATIVE MAPPING OF HUMAN BRAIN CEREBROVASCULAR AND METABOLIC FUNCTION	G. Mollica - NEW SENSITIVITY-ENHANCED SOLID-STATE NMR APPROACHES TO INVESTIGATE CRYSTALLIZATION AND POLYMORPHISM
11:50-12:10	Bracco lecture – A. Fringuello Mingo - AN IMPROVED BLOOD POOL MRI AGENT WITH DINUCLEAR STRUCTURE: <i>IN VITRO</i> AND <i>IN VIVO</i> CHARACTERIZATION AND DIAGNOSTIC CAPABILITY IN A MODEL OF RAT CEREBRAL ISCHEMIA.	S. Borsacchi – PHOSPHORENE AND BLACK PHOSPHORUS: THE ³¹ P NMR VIEW
12:10-12:30	M. Tripepi – PARAMAGNETIC GIANT LIPOSOMES AS HIGHLY SENSITIVE VERSATILE MRI CONTRAST AGENTS	E.M. Vasini - TECHNICAL DETAILS OF AN FFC-NMR STUDY OF WATER-CYCLOHEXANE-LECITHIN MICELLES SYSTEMS
12:30-13:50	Lunch 1	
	Plenary session Chair: G. Pileio	
13:50-14:35	Plenary Lecture 4 P. Jezzard – NEW METHODS FOR THE STUDY OF CEREBROVASCULAR DISEASE USING MAGNETIC RESONANCE IMAGING	
14:35-14:55	Segre Fellowships 2018 E. Amadio – APPLICATIONS OF 1D AND 2D SOLID-STATE NMR EXPERIMENTS FOR STUDYING DESMOTROPES OF ACTIVE PHARMACEUTICAL INGREDIENTS AND QUANTIFYING THEM	
14:55-15:25	Bruker Lecture F. Benevelli – NMR APPLIED TO THE ANALYSIS OF BIOLOGICS	
15:25-16:40	Coffee break + Poster session 3	
16:10-16:40	GIRM assembly	
16:40-19:30	GIDRM assembly + announcement of poster competition winners	
19:30	Departure for the social dinner	

Friday September 13th

	Parallel session A Chair: A. Galante	Parallel session B Chair: I. Kuprov
8:45-9:15	F. Castiglione - DIFFUSION NMR IN HYDROGEL SYSTEMS: EVIDENCE OF LÉVY FLIGHTS SUPERDIFFUSIVE MOTION	D. Remondini - MACHINE LEARNING TOOLS FOR ADVANCED PROCESSING AND ANALYSIS OF MR DATA
9:15-9:35	G. Profeta - WATER DYNAMICS AND NMR RELAXATION PROPERTIES OF NANOCONFINED WATER	C. Rizza - BOOSTING MAGNETIC RESONANCE IMAGING SIGNAL-TO-NOISE RATIO USING MAGNETIC SURFACE PLASMONS
9:35-9:55	G. Melchiorre - SAD TI: SINGLET ASSISTED DIFFUSION TENSOR IMAGING FOR POROUS MEDIA INVESTIGATIONS	R. Francischello - LOW RANK APPROXIMATION: A FLEXIBLE FRAMEWORK FOR NOISE REDUCTION IN MULTIPLE NMR EXPERIMENTS
9:55-10:15	M.E. Di Pietro - NMR AS A TOOL TO PROBE STRUCTURE AND DYNAMICS OF DEEP EUTECTIC SOLVENTS AND THEIR MIXTURES	A. Rotondo - MINING ¹³ C-NMR EXPERIMENTS THROUGH THE MARA-NMR STRATEGY AND OTHER NMR ISSUES

	Plenary session Chair: J. Titman
10:15-10:45	Poster competition winners lectures

10:45-11:15	Coffee break
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	Parallel session A Chair: M. D'Onofrio	Parallel session B Chair: N.J. Shah
11:15-11:45	L. Ragona - MOLECULAR MECHANISM OF ANTIANGIOGENIC AGENTS TARGETING FIBROBLAST GROWTH FACTOR-2/TYROSINE-KINASE RECEPTOR INTERACTIONS	N. Toschi - ADVANCED DIFFUSION MRI FOR WHOLE BRAIN IN VIVO AXONAL DIAMETER MAPPING IN MULTIPLE SCLEROSIS
11:45-12:05	L. Russo - TUNING OF MICRO-MILLISECOND CONFORMATIONAL DYNAMICS CONTROLS THE FORMATION OF PRION PROTEIN INTERMEDIATE STATES INVOLVED IN AMYLOID FIBRILS ASSEMBLY	S. Della Penna - MULTIVARIATE MEG CORRELATES OF BOLD MODULATION INDUCED BY VISUOSPATIAL ATTENTION
12:05-12:25	G. Parigi - LOCAL AND GLOBAL PROTEIN DYNAMICS BY PFC RELAXOMETRY	E. Biondetti - ASSESSING VOLUMETRIC CHANGES IN THE SUBSTANTIA NIGRA PARS COMPACTA (SNc) OF PATIENTS WITH R.E.M. SLEEP BEHAVIOUR DISORDER (RBD) AND PARKINSON'S DISEASE (PD)
12:25-12:45	M. Schiavina - TAKING SIMULTANEOUS SNAPSHOTS OF INTRINSICALLY DISORDERED PROTEINS IN ACTION EXPLOITING MULTIPLE RECEIVERS AND HETERONUCLEAR DIRECT DETECTION	M. Marrale - THALAMIC PARCELLATION FOR TARGET IDENTIFICATION IN TRANS-CRANIAL MR-GUIDED FOCUSED ULTRASOUND (TCMRGFUS) THALAMOTOMIES: A PRELIMINARY PROBABILISTIC TRACTOGRAPHY STUDY

	Plenary session Chair: M. Geppi
12:45-13:30	Plenary Lecture 5 I. Kuprov - QUANTUM MECHANICAL MRI SIMULATIONS: SOLVING THE MATRIX DIMENSION PROBLEM

13:30-13:40	Closing
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13:40-15:00	Lunch
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