



# EUROMAR Nantes 2018

European Magnetic Resonance Meeting

**1-5 July 2018, France**

La Cité, Nantes Events Center

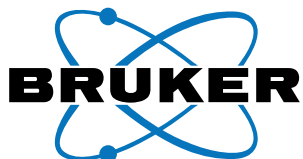
**CONFERENCE PROGRAMME**

[www.euromar2018.org](http://www.euromar2018.org)

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#EUROMAR2018

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## WELCOME WORD FROM EUROMAR 2018 CHAIR

On behalf of the Organising and Scientific Committees of the EUROMAR and AMPERE organisations, I am delighted to welcome you to EUROMAR 2018 in Nantes, France. It is the first time that EUROMAR is held in France since it was created in 2005, and it is an honor and a privilege to chair this edition.

As every year, I am confident that the EUROMAR conference will be a stimulating forum to exchange on the most recent breakthroughs in magnetic resonance. I am grateful to the members of the international scientific committee who have put together a remarkable scientific programme, with a high level selection of invited lectures and have promoted oral communications and posters. We have received an impressive number of abstract submissions this year, and this reflects the dynamism of our community.

To prepare this event, I have been lucky enough to work with a very efficient organising committee, who has been working night and day during the last two years to make this conference a unique event for the magnetic resonance family, with an exciting social programme featuring a selection of the best locally sourced food and wines. I would also like to thank the numerous volunteers, whose blue T-shirts will guide you throughout this fascinating week.

I would also like to warmly thank our numerous academic and industrial sponsors. Without their support, EUROMAR would not exist. Thanks to their generosity, we have been able to offer attractive registration costs and to grant a high number of student stipends on the basis of submitted abstracts. Please do not forget to visit the exhibitor's booths during coffee breaks and lunches!

I am confident that EUROMAR 2018 will be an unforgettable event and I thank you again for joining us in Nantes!



**Patrick GIRAudeau**

Chair, EUROMAR 2018

On behalf of the organising and scientific committees

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[www.univ-nantes.fr](http://www.univ-nantes.fr)

## EUROMAR 2018 CONFERENCE SECRETARIAT

EUROMAR 2018 / MCI FRANCE

25 rue Anatole France - CS70139 - 92532 Levallois-Perret Cedex, France

Tel: +33 (0)1 53 85 82 72

**Email:** [info@euromar2018.org](mailto:info@euromar2018.org)

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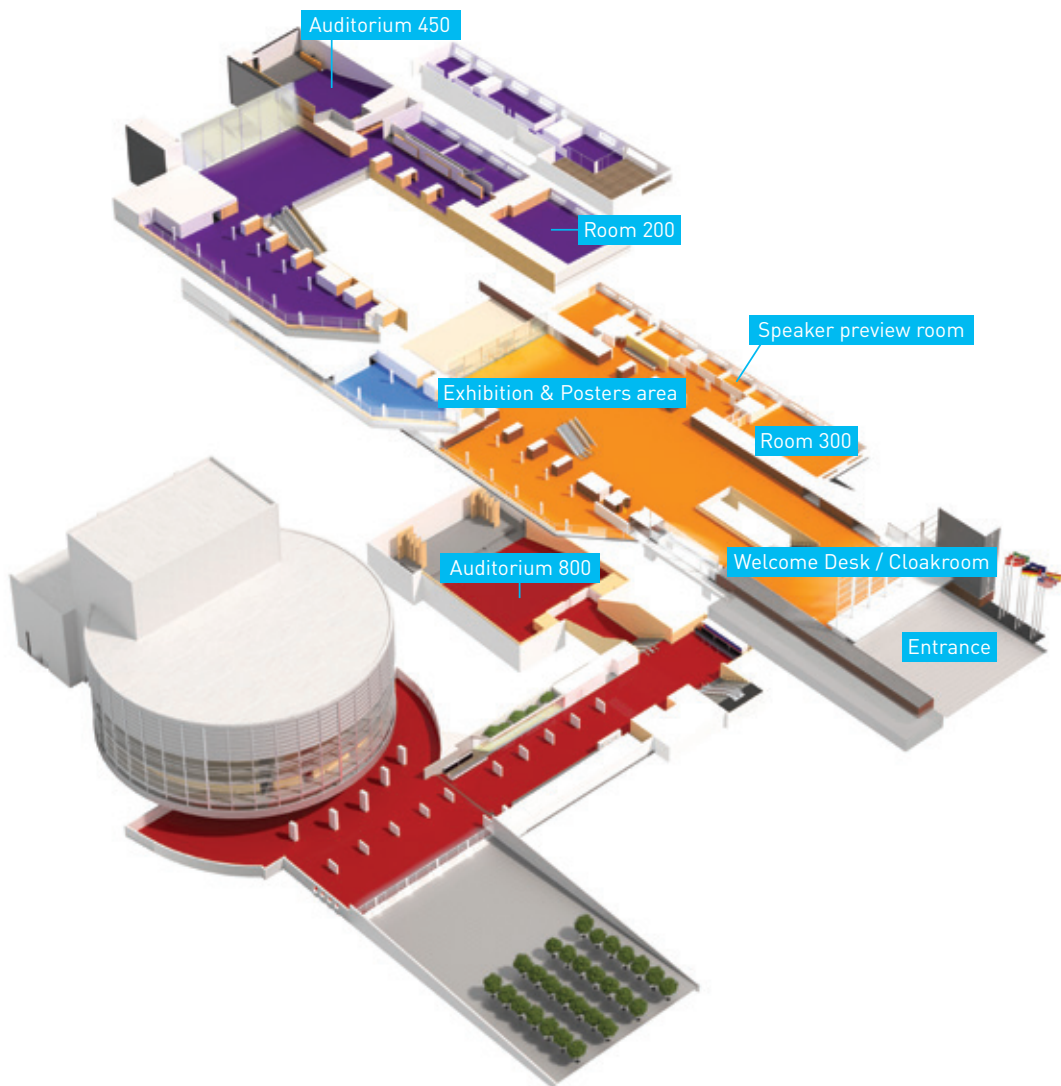


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information and diffusion of culture as essential components of economic and human development as well as societal democratization.

Donate your book during the conference on the Library Project Booth in the Exhibition Area. To learn more about BSF's ongoing projects: [www.librarieswithoutborders.org](http://www.librarieswithoutborders.org)

## CONFERENCE VENUE FLOORPLAN



## SOCIAL EVENTS

### WELCOME MIXER

SUNDAY, JULY 1<sup>ST</sup> | 19:00–21:00

Exhibition Area, ground floor

*No registration needed, free and open to all delegates*

**Dress code:** smart casual

### BRUKER NIGHT

MONDAY, JULY 2<sup>ND</sup> | 20:15–23:00

**Dress code:** smart casual



**Les Machines de l'Île**  
Parc des Chantiers  
Boulevard Léon Bureau  
44200 Nantes

*Shuttle service from conference center*

*Registration with bruker's booth and on the Bruker website, in the «social event tab»:*

[www.bruker.com/events/euromar.html](http://www.bruker.com/events/euromar.html)

### EUROMAR 2018 CONFERENCE DINNER

Conference dinner sponsored by



THURSDAY, JULY 5<sup>TH</sup> | 19:00–23:00

Conference Center, level 2

**Dress code:** smart casual

*Upon registration (60 € per participant / 40 € per student VAT included), limited number of seats.  
Onsite requests cannot be guaranteed.*

*Please make sure you bring your admission ticket.*

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**www.ampere-society.org**

The Groupelement AMPERE (Atomes et Molécules Par Études Radio-Électriques) is an European association of scientists with the mission to promote activities in magnetic resonance and related phenomena. It was founded in France in 1951 and was incorporated as a European organization in Switzerland in 1956. Although the roots and the basic activities are in Europe, its members are from all over the world. Today it is the umbrella organization for several interest groups representing various aspects of magnetic resonance. The EUROMAR Conference is the annual general conference of the AMPERE Society covering all fields of magnetic-resonance research.

The next EUROMAR Conference will be held as a joint conference with ISMAR in Berlin from August 25-30 2019.

All registered EUROMAR participants are automatically members of the Groupelement AMPERE and are invited to the General Assembly on Wednesday, July 4 2018 at 7 pm (directly following the plenary session) in the Auditorium 800.

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## SCHEDULE AT A GLANCE

	SUNDAY, JULY 1 <sup>ST</sup>	MONDAY, JULY 2 <sup>ND</sup>	TUESDAY, JULY 3 <sup>RD</sup>	WEDNESDAY, JULY 4 <sup>TH</sup>	THURSDAY, JULY 5 <sup>TH</sup>	FRIDAY, JULY 6 <sup>TH</sup>
8h45 10h15		Plenary session	Plenary session	Plenary session	Plenary session	
10h15 10h45		Coffee Break	Coffee Break	Coffee Break	Coffee Break	
10h45 12h00		Parallel sessions	Parallel sessions	Parallel sessions	Parallel sessions	
12h00 12h45						
12h45 13h45	Registration opening	Lunch	Lunch	Lunch	Lunch	
13h45 15h45		Poster session Even numbers	Poster session Odd numbers	Poster session Even and Odd numbers	Parallel sessions	
15h45 16h15		Parallel sessions	Tutorials <i>(recorded and available online)</i>	Parallel sessions	Coffee Break	
16h15 16h45	Opening Ceremony and Prizes					
16h45 17h45						
17h45 18h15						
18h15 19h00		Plenary session	Plenary session	Plenary session		
EVENING	Welcome mixer	Brucker Night		General Assembly Ampere	EUROMAR 2018 CONFERENCE DINNER (upon registration)	

GERM  
30<sup>th</sup>  
anniversary  
satellite  
meeting

BRUKER  
PRE-  
EUROMAR  
SYMPOSIUM

DETAILED PROGRAMME

From 12:00	Registration opens
12:00–16:00	<b>BRUKER PRE-EUROMAR SYMPOSIUM</b> AUDITORIUM 450
16:15–19:00	<b>Opening Ceremony and Prizes Session</b> AUDITORIUM 800 <i>Chair: Patrick Giraudeau (France)</i>
16:15	Welcome by representatives of local institutions
16:30	Welcome by Bernhard Blümich on behalf of Ampere
16:35	Welcome by Thomas Prisner on behalf of Euromar
16:40	Welcome by Patrick Giraudeau
16:50	Raymond Andrew Prize introduction, Beat Meier
16:55	Raymond Andrew Prize lecture
17:15	Ampere Prize introduction, Beat Meier
17:20	Ampere Prize lecture
17:40	Presentation of the Ernst Prize, Lucia Banci
18:00	Ernst Prize lecture
19:00–21:00	<b>Welcome Mixer</b> EXHIBITION AREA

Plenary Session AUDITORIUM 800  
Chair: Thomas Prisner (Germany)

08:45 **SINGLE-AND-MULTI-SHOT SPATIOTEMPORALLY ENCODED MRI** Lucio Frydman (Israel)

09:30 **HEAVY MICE AND LIGHT THINGS: USING SOLID-STATE NMR SPECTROSCOPY TO UNDERSTAND BIOLOGICAL TISSUES IN HEALTH AND DISEASE** Melinda Duer (United Kingdom)

10:15-10:45 Coffee break EXHIBITION AREA

10:45-12:45			Hyperpolarization   ROOM 300 Chair: Matthias Ernst (Switzerland)	Computation   ROOM 200 Chair: Thomas Vosegaard (Denmark)
10:45			<b>IL03</b>   NMR CRYSTALLOGRAPHY DRIVEN BY MACHINE LEARNED CHEMICAL SHIFTS Lyndon Emsley (Switzerland)	<b>IL05</b>   PROCESSING OF HIGH-RESOLUTION 2D SPECTRA. TOWARDS A FULLY AUTOMATED EXTRACTION OF NMR PARAMETERS Damien Jeannerat (Switzerland)
11:15			<b>004</b>   HYPERPOLARIZED WATER TO VISUALIZE DISORDERED, WELL-FOLDED AND LOWLY-POPULATED STATES IN PROTEINS Or Szekeley (Israel) <b>JMR AWARD</b>	<b>007</b>   CAPTURING THE DYNAMICS OF INTRINSICALLY DISORDERED PROTEINS USING NMR RELAXATION AND MOLECULAR DYNAMICS SIMULATIONS Nicola Salvi (France)
11:35			<b>005</b>   RADICAL POLARIZATION AND LIQUID-STATE DYNAMIC NUCLEAR POLARIZATION (DNP) WITH PHOTO-EXCITED FULLERENE NITROXIDE DERIVATIVES Shu-Hao Liou (Germany)	<b>008</b>   TRENDS - SOFTWARE FOR REACTION MONITORING WITH TIME-RESOLVED NON-UNIFORM SAMPLING Krzysztof Kazimierzczuk (Poland)
11:55			<b>006</b>   DIRECT HYPERPOLARIZATION OF <sup>15</sup> N <sub>2</sub> SINGLET STATES IN TERMINAL DIAZIRINES (R-CH <sup>15</sup> N <sub>2</sub> ) ENABLES LONG LIVED HYPERPOLARIZATION AND SENSITIVE PROTON DETECTION Thomas Theis (USA)	<b>009</b>   QUANTUM-CHEMICAL COMPUTATION OF pNMR PARAMETERS Juha Vaara (Finland)
12:15			<b>IL04</b>   PARA-HYDROGEN BASED HYPERPOLARIZATION FOR QUANTITATIVE NMR ANALYSIS AT NANOMOLAR CONCENTRATIONS Marco Tessari (Netherlands)	<b>IL06</b>   SPIN DYNAMICS UNDER MAS-DNP: THEORY AND EXPERIMENTS Frédéric Mentink-Vigier (USA)
10:45			<b>IL01</b>   COVALENT EPI TOPE MASKING IN ALLERGENIC PROTEINS Martin Tollinger (Austria)	
11:15			<b>001</b>   MECHANISTIC VIEW OF THE OPIOID MU-RECEPTOR ACTIVATION Hélène Démoné (France)	
11:35			<b>002</b>   CHAPERONE-CLIENT-INTERACTIONS: FROM BASIC PRINCIPLES TO ROLES IN HEALTH AND DISEASE Björn M. Burmann (Sweden)	
11:55			<b>003</b>   CAPTURING PROTEIN DYNAMICS WITH UNPRECEDENTED SPEED BY HIGH POWER RELAXATION MEASUREMENTS Supriya Pratihar (Germany)	
12:15			<b>IL02</b>   CONTROLLED EXPLOSIONS FOR STUDYING PROTEIN FOLDING BY REAL TIME NMR Ad Bax (USA)	



12:45-13:45

Lunch EXHIBITION AREA

12:45-13:45

JEOL Workshop ROOM 300

13:45-15:45

Poster Session / even number POSTER AREA

15:45-17:45

Biosolids   AUDITORIUM 800 Chair: Vladimír Sklenar (Czech Republic)	EPR/ESR   ROOM 300 Chair: Sun Un (France)	Small Molecules and Pharmaceutical   ROOM 200 Chair: Fabien Ferrage (France)
<b>IL07</b>   TO ASSIGN OR NOT TO ASSIGN: THE ABC TRANSPORTER BMRA Anja Böckmann (France)	<b>IL09</b>   MODELLING THE HETEROGENEOUS STRUCTURE OF A PROTEIN-RNA COMPLEX WITH DISTANCE DISTRIBUTION RESTRAINTS Gunnar Jeschke (Switzerland)	<b>IL11</b>   STATE OF THE ART OF THE COMPRESSED GELS TECHNOLOGY TO MEASURE HIGH QUALITY ANISOTROPIC NMR PARAMETERS Roberto Gil (USA)
<b>O10</b>   SELECTIVE ENLIGHTENMENT OF INTERACTION SURFACES IN BIOLOGICAL SYSTEMS BY DNP-ENHANCED NMR Sabine Hediger (France)	<b>O13</b>   HIGH RESOLUTION STRUCTURE DETERMINATION OF MOLYBDENUM COFACTORS IN ENZYMES THROUGH EPR, HYSCORE AND DFT STUDIES Bruno Guigliarelli (France)	<b>O16</b>   GENERAL APPROACH TO ACCESS LONG-RANGE <sup>1</sup> H- <sup>1</sup> H RESIDUAL DIPOLAR COUPLINGS Davy Sinnæve (Belgium)  <b>MRC AWARD</b>
<b>O11</b>   A SINGLE NAK CHANNEL CONFORMATION IS NOT ENOUGH FOR NON-SELECTIVE ION CONDUCTION Chaowei Shi (Germany)  <b>MRC AWARD</b>	<b>O14</b>   THE CHEESY WAY TO HYPERFINE SPECTROSCOPY Nino Wili (Switzerland)	<b>O17</b>   VERY FAST MAS SOLID-STATE NMR IN SERVICE OF PHARMA – METHODS FOR CONTROLLING OF PREPARATION AND STRUCTURE ELUCIDATION OF PHARMACEUTICAL COCRYSTALS Marek Potrzebowski (Poland)
<b>O12</b>   NMR SPECTROSCOPY AT 1.5 GHZ USING A 35.2 T HYBRID MAGNET WITH A VIEW TOWARD SCIENCE IN HIGH TEMPERATURE SUPERCONDUCTING MAGNETS Timothy Cross (USA)	<b>O15</b>   COMBINED ESR AND NMR STUDY OF ANTISYMMETRIC EXCHANGE IN QUANTUM SPIN LIQUIDS Péter Szirmai (Switzerland)  <b>MAGNETOCHEMISTRY AWARD</b>	<b>O18</b>   SMALL MOLECULE MIXTURE ANALYSIS BY HETERONUCLEAR NMR UNDER SPIN DIFFUSION CONDITIONS IN VISCOUS DMSO-WATER SOLVENT Pedro Lameiras (France)
<b>IL08</b>   MAGIC-ANGLE-SPINNING NMR OF PIVOTAL PROTEIN-LIPID INTERACTIONS IMPLICATED IN PROGRAMMED CELL DEATH Patrick Van der Wei (USA)	<b>IL10</b>   MAGNETIC RESONANCE WITH QUANTUM MICROWAVES Patrice Bertet (France)	<b>IL12</b>   MONITORING PHOTOCROMIC PROCESSES AND PHOTOINDUCED REACTIONS VIA IN-SITU IRRADIATION NMR-SPECTROSCOPY Christina Thiele (Germany)

17:45-18:15 **Coffee break** EXHIBITION AREA

18:15-19:00 **Plenary Session** AUDITORIUM 800  
*Chair: Sophie Zinn-Justin (France)*

18:15 **ISOTOPE LABELING IN HIGHER EUKARYOTES MAKES MORE PROTEINS  
AMENABLE TO NMR: APPLICATIONS TO SIGNAL TRANSMISSION IN GPCRS**  
*Stephan Grzesiek (Switzerland)*

20:15-23:00 **Bruker Night** Les Machines de Lille

08:45-10:15	<b>Plenary Session</b> AUDITORIUM 800 <i>Chair: Teresa Carlomagno (Germany)</i>		
08:45	<b>TIME-RESOLVED NMR TO CHARACTERIZE BIOMOLECULAR REFOLDING</b> <i>Harald Schwalbe (Germany)</i>		
09:30	<b>PROBING ACTINIDE-LIGAND INTERACTIONS BY EPR SPECTROSCOPY</b> <i>Eric McInnes (United Kingdom)</i>		
10:15-10:45	<b>Coffee break</b> EXHIBITION AREA		
10:45-12:45	<b>Solid-state NMR methods  </b> AUDITORIUM 800 <i>Chair: Tatyana Polenova (USA)</i>	<b>MRI and in vivo  </b> ROOM 300 <i>Chair: Andrew Webb (Netherlands)</i>	<b>Benchtop and lowfield  </b> ROOM 200 <i>Chair: Bernhard Blümnich (Germany)</i>
10:45	<b>IL13   IDEAL PULSES - PERFECT RESULTS?</b> <i>Matthias Ernst (Switzerland)</i>	<b>IL15   IN VIVO MRI TRACKING OF SINGLE CELLS LABELLED WITH IRON OXIDE NANO PARTICLES</b> <i>Cornelius Faber (Germany)</i>	<b>IL17   FIELD-CYCLING NMR OF POROUS MATERIALS AT ZERO AND ULTRALOW MAGNETIC FIELDS</b> <i>Michael Tayler (United Kingdom)</i>
11:15	<b>O19   LOOPED, PROJECTED-SPECTROSCOPY (L-PROSY) APPLIED TO SOLID-STATE PROTON-DETECTED HETCOR: A NEW METHOD FOR ENHANCING SOLID-STATE 2D HETERONUCLEAR CORRELATION NMR SPECTRA</b> <i>Michael J. Jaroszewicz (Israel)</i>	<b>O22   ADVANCES IN SINGLE-SCAN TIME-ENCODING MAGNETIC RESONANCE IMAGING</b> <i>Sina Marhabaie (France)</i>	<b>O25   LOW-FIELD RHEONMR AS A NEW TOOL FOR THE STUDY OF SOFT MATERIALS</b> <i>Carlo Botha (Germany)</i>
11:35	<b>O20   IN SITU DNP NMR INVESTIGATION OF METASTABLE POLYMORPHS OF GLYCINE AT LOW TEMPERATURES</b> <i>Giulia Mollica (France)</i>	<b>O23   2D SELECTIVE EXCITATION WITH RESILIENCE TO LARGE B<sub>0</sub> INHOMOGENEITIES</b> <i>Michael Mullen (USA)  JMR AWARD</i>	<b>O26   <sup>31</sup>P NMR FOR LIPID ANALYSIS WITH A LOW-FIELD BENCHTOP SPECTROMETER</b> <i>Boris Gouilleux (Denmark)</i>
11:55	<b>O21   UNDERSTANDING HYDROGEN BONDING STRUCTURE BY ELECTRON AND NMR NANO-CRYSTALLOGRAPHY</b> <i>Yusuke Nishiyama (Japan)</i>	<b>O24   CHARACTERIZING THE MICROSCOPIC HETEROGENEITY OF THE LIVING HUMAN BRAIN WITH SPATIALLY RESOLVED 5D DIFFUSION-RELAXATION DISTRIBUTIONS</b> <i>Daniel Topgaard (Sweden)</i>	<b>O27   DETAILS OF POLYMER CHAIN DYNAMICS AS PROBED BY LOW-RESOLUTION NMR</b> <i>Kay Saatiwaechter (Germany)</i>

12:15	<b>IL14</b>   UTILIZING PHASE MODULATED SATURATION PULSES TO OBTAIN DISTANCE AND RELAXATION OF QUADRUPOLEAR SPINS SUBJECTED TO EXTENSIVELY LARGE QUADRUPOLEAR FREQUENCIES <i>Amir Goldbourt (Israel)</i>	<b>IL16</b>   QUADRUPOLE ENHANCED PROTON RELAXATION: PROOF OF PRINCIPLE FOR A NOVEL EXTRINSIC MRI CONTRAST MECHANISM <i>Hermann Scharfetter (Austria)</i>	<b>IL18</b>   ULTRAFAST LAPLACE NMR USING A SINGLE-SIDED MAGNET <i>Ville-Veikko Telkki (Finland)</i>
12:45-13:45	<b>Lunch</b> EXHIBITION AREA		
12:45-13:45	MAGRITEK Workshop ROOM 200		
13:45-15:45	Poster Session / odd number POSTER AREA		
15:45-17:45	Tutorials AUDITORIUM 800 Chair: <i>Olivier Lafon (France)</i>		
TUTORIALS ARE RECORDED AND WILL BE AVAILABLE ONLINE			

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## Learn more about Innovations in JEOL NMR Technology

Monday, **July 2<sup>nd</sup>**: Symposium “New Developments & Applications in **Liquid State NMR**” – by Adolfo BOTANA, JEOL UK. Ltd.

*Room 300, Ground Floor*

Thursday, **July 5<sup>th</sup>**: Symposium “New Developments & Applications in **Solid State NMR**” – by Kouji YAZAWA, JEOL RESONANCE Inc.

*Room 300, Ground Floor*



<p>08:45-10:15 Plenary Session AUDITORIUM 800 Chair: Thomas Meersmann (Netherlands)</p>			
08:45	<p><b>HYPERPOLARIZED XENON-129 MRI CONTRAST AGENTS FOR MOLECULAR IMAGING</b> Ivan Dmochowski (USA)</p>		
09:30	<p><b>HOW QUANTITATIVE NMR ENABLES NEW METABOLOMICS METHODS</b> Daniel Raftery (USA)</p>		
10:15-10:45	<p><b>Coffee break EXHIBITION AREA</b></p>		
10:45-12:45	<p><b>Bioliquids   AUDITORIUM 800</b> Chair: Isabella Felli (Italy)</p>		
10:45	<p><b>IL19  </b> EVOLUTION OF PROTEIN DYNAMICS - TIME TRAVEL INTO THE PAST AND FUTURE Dorothee Kern (USA)</p>	<p><b>Materials   ROOM 300</b> Chair: Olivier Lafon (France)</p> <p><b>IL21  </b> INVESTIGATING DISORDER IN A<sub>2</sub>B<sub>2</sub>O<sub>7</sub> CERAMICS USING NMR SPECTROSCOPY AND FIRST-PRINCIPLES CALCULATIONS Sharon Ashbrook (United Kingdom)</p>	<p><b>MRI and in vivo   ROOM 200</b> Chair: Jean-Marie Bonny (France)</p> <p><b>IL23  </b> Hyperpolarized <sup>129</sup>Xe Lung MRI and Biosensors Xin Zhou (China)</p>
11:15	<p><b>O28  </b> QUANTIFYING RIBOSOME-NASCENT CHAIN INTERACTIONS AND INTRACELLULAR QUINARY STRUCTURE USING ADAPTIVELY SAMPLED MEASUREMENTS OF CROSS-CORRELATED RELAXATION IN METHYL SPIN SYSTEMS Christopher Waudby (United Kingdom)</p>	<p><b>O31  </b> METHYLAMMONIUM LEAD HALIDE PEROVSKITES: FROM STABLE PHOTOVOLTAIC MATERIALS TO NMR THERMOMETERS WITH PB-207 SOLID-STATE NMR SPECTROSCOPY Vladimir Michaelis (Canada)</p>	<p><b>O34  </b> SINGLE-SCAN SYNCHRONIZED DIFFUSION AND T<sub>2</sub> MAPPING Lingceng Ma (China)</p>
11:35	<p><b>O29  </b> COMBINATORIAL SELECTIVE LABELING IN STUDIES OF MEMBRANE PROTEINS WITH LIMITED STABILITY: MAPPING OF BINDING INTERFACE OF SPIDER TOXIN WITH VOLTAGE-GATED SODIUM CHANNEL Zakhar O. Shenkarev (Russian Federation)</p>	<p><b>O32  </b> DNP ASSISTED STUDY OF THE INTERFACE REGION IN COMPOSITE MATERIALS Ole Brauckmann (Netherlands) <b>JMR AWARD</b></p>	<p><b>O35  </b> IMPROVING DETECTION LIMITS BY USING A 22 T MAGNET AND MICROCOILS - POTENTIAL AND CHALLENGES IN IMAGING BIOLOGICAL SAMPLES AT ULTRA-HIGH FIELD STRENGTH Julia R. Krug (Netherlands)</p>
11:55	<p><b>O30  </b> NMR FOR FOLLOWING BRCA2 PHOSPHORYLATION DURING MITOSIS: CHARACTERIZATION OF BREAST CANCER VARIANTS Marion Julien (France)</p>	<p><b>O33  </b> BIO-INSPIRED SOLID-STATE NMR EXPERIMENTS TO STUDY REACTION INTERMEDIATES AND SURFACE SPECIES IN HETEROGENEOUS CATALYSIS Marc Baldus (Netherlands)</p>	<p><b>O36  </b> MICRO-NMR ON 40 NANOLITER DROPLET ARRAYS Ronald Kampmann (Germany)</p>

12:15		<p><b>IL20</b>   MILLISECOND MOTIONS IN ALLOSTERY AND PHOSPHORYL TRANSFER <i>Pat Loria (USA)</i></p>	<p><b>IL22</b>   UNPRECEDENTED DETAILS ON THE STRUCTURE OF CHEMISORBED CO<sub>2</sub> SPECIES IN MESOPOROUS SOLID SORBENTS ENABLED BY NMR AND COMPUTER MODELING <i>Luis Mafrá (Portugal)</i></p>	<p><b>IL24</b>   DIFFUSION-WEIGHTED MRS TO PROBE BRAIN CELL STRUCTURE IN VIVO <i>Julien Valette (France)</i></p>
12:45-13:45	Lunch EXHIBITION AREA			
13:45-15:45	MAGRITEK Workshop ROOM 200			
15:45-17:45	Poster Session / even and odd number POSTER AREA			
	<p><b>Biosolids</b>   AUDITORIUM 800 <i>Chair: Sabine Hediger (France)</i></p>	<p><b>Small Molecules and Pharmaceutical</b> ROOM 300   <i>Chair: Christina Thiele (Germany)</i></p>	<p><b>Hardware</b>   ROOM 200 <i>Chair: Arno Kentgens (Netherlands)</i></p>	
15:45	<p><b>IL25</b>   STRUCTURAL INVESTIGATION ON BACILLUS SUBTILIS BIOFINIS AND EXPERIENCES WITH 110KHz SPINNING AS WELL AS DYNAMIC NUCLEAR POLARISATION (DNP) <i>Hartmut Oschkinat (Germany)</i></p>	<p><b>IL27</b>   SPATIALLY ENCODED DIFFUSION-ORDERED NMR SPECTROSCOPY <i>Jean-Nicolas Dumez (France)</i></p>	<p><b>IL29</b>   MAGNET TECHNOLOGY SUITABLE FOR 30 T NMR &amp; 20 T HUMAN MRI <i>Mark Bird (USA)</i></p>	
16:15	<p><b>037</b>   STRUCTURAL CHARACTERIZATION A OF 29 KDA ENZYME-INHIBITOR COMPLEX AT 110 KHz <i>Rasmus Linser (Germany)</i></p>	<p><b>040</b>   INTERACTION STUDIES WITH SECONDARY-LABELLED HYPERPOLARIZED LIGANDS <i>Olivier Cata (France)</i></p>	<p><b>043</b>   MICRO-INTEGRATED GRADIENT SYSTEM FOR MAGNETIC RESONANCE MICROSCOPY <i>Markus Meissner (Germany)</i></p>	
16:35	<p><b>038</b>   STRUCTURAL STUDIES OF NUCLEOSOMES AND HUMAN CYTOSKELETON PROTEINS: THE POWER OF HIGH-SENSITIVITY/RESOLUTION SOLID-STATE NMR METHODS <i>Shengqi Xiang (Netherlands)</i></p>	<p><b>041</b>   THE CONCEPT OF TENSORIAL CONSTRAINTS IN MOLECULAR DYNAMICS: CONFORMATION AND CONFIGURATION OF FLEXIBLE MOLECULES BY RDQS WITHOUT ALIGNMENT TENSOR <i>Burkhard Luy (Germany)</i></p>	<p><b>044</b>   A FAST MOSFET SWITCH FOR RF PULSE MANAGEMENT AND SHAPING IN LOW-FIELD NMR AND MRI <i>Pierre-Jean Nacher (France)</i></p>	
16:55	<p><b>039</b>   THE HYDROPHOBIC PORE ALKYL REVEALED IN LIPID BILAYERS AND DETERGENT MICELLES <i>Tobias Schubels (France)</i></p>	<p><b>042</b>   HIT-TARGET INTERACTION STUDY BY IN CELL NMR <i>Nadia Izadi-Pruneyre (France)</i></p>	<p><b>045</b>   HIGH PERFORMANCE FLUID-PATH FOR DISSOLUTION-DNP <i>Morgan Ceillier (France)</i></p>	
17:15	<p><b>IL26</b>   DE NOVO ATOMIC STRUCTURE, DYNAMIC ALLOSTERY AND ENZYMIC MECHANISMS OF A 0.5 MDA PROTEASE FROM AN INTEGRATED SSNMR/CRYO-EM APPROACH <i>Paul Schanda (France)</i></p>	<p><b>IL28</b>   DIVIDE AND RULE: NEW NMR METHODS FOR THE ANALYSIS OF MIXTURES <i>Laura Castanar (United Kingdom)</i></p>	<p><b>IL30</b>   COMBINING SOLUTION FLOW AND MICRO-DETECTION (AND SOMETIMES HYPERPOLARIZATION) FOR ENHANCED NMR <i>Patrick Berthault (France)</i></p>	

17:45-18:15 **Coffee break** EXHIBITION AREA

18:15-19:00 **Plenary Session** AUDITORIUM 800  
*Chair: Hervé Vezin (France)*

18:15

**HYPERFINE SPECTROSCOPY AND DISTANCE MEASUREMENTS TO STUDY ATP INDUCED CONFORMATIONAL CHANGES**  
Sponsored by



*Daniella Goldfarb (Israel)*





Regio- and stereo-specifically labelled  
Isoleucine, Leucine and Valine for *in vitro*  
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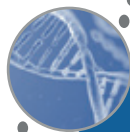
Methyl groups are ideal probes for NMR studies of challenging proteins and complex biomolecular assemblies. Therefore, NMR-Bio proposes advanced solutions for your innovative R&D to specifically label methyl groups in deuterated proteins. NMR-Bio aims to extend the applicability of this technology, initially developed for bacteria, to eukaryotic and *in vitro* expression systems.

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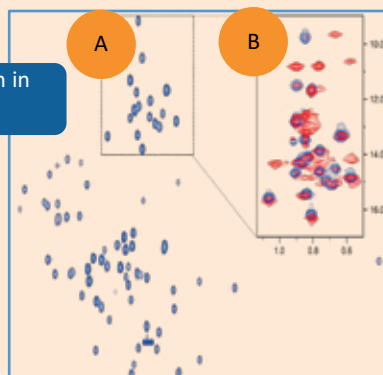
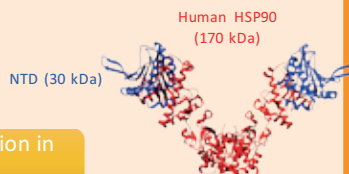
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Our kits allow a scrambling-free  
labelling and are optimized for:

- (1) Long-range NOES detection;
- (2) Dynamic & ssNMR studies;
- (3) Study of Large complexes;
- (4) Methyl groups assignment.

A

2D  $^{13}\text{CH}_3$  NMR spectrum of HSP90-NTD selectively labelled and protonated at Ile- $\delta 1$ , Ala- $\beta$ , Leu-proS, Val-proS and Thr- $\gamma$  methyl groups using PLAM-AP<sup>181</sup>LV<sup>proST</sup> NMR-Bio kit.

B

Superimposition of 2D  $^{13}\text{CH}_3$  NMR spectra of (I- $\delta 1$ )-HSP90-NTD expressed in *E. coli* and (I- $\delta 1$ )-HSP90-FL protein synthesized in Cell-free using NMR-Bio technology.

For more details visit the NMR-Bio booth in poster exhibition hall and Get 10% discount on quotes issued during the conference! E-mail: [kerfah@nmr-bio.com](mailto:kerfah@nmr-bio.com). [www.nmr-bio.com](http://www.nmr-bio.com)

08:45-10:15 Plenary Session AUDITORIUM 800  
Chair: Luisa Ciobanu (France)

**NON-COVALENT AND COVALENT BONDING FROM A MULTINUCLEAR SOLID-STATE MAGNETIC RESONANCE PERSPECTIVE: STRUCTURE, SYMMETRY, AND DYNAMIC PROCESSES**

David Bryce (Canada)

**RELAXING HARDWARE CONSTRAINTS: SHIFTING THE BURDEN TO SOFTWARE TO MAKE FASTER, PORTABLE AND MOTION TOLERANT IMAGES**

Lawrence Wald (USA)

10:15-10:45 Coffee break EXHIBITION AREA

10:45-12:45

Liquid-state NMR methods   ROOM 300 Chair: Wiktor Kozminski (Poland)			Exotica   ROOM 200 Chair: Dimitrios Sakellariou (Belgium)	
10:45	<b>IL31</b>   SURFACE-MEDIATED HYPERPOLARIZATION OF WATER AND OTHER NEAT LIQUIDS FROM PARAHYDROGEN Russ Bowers (USA)	<b>IL33</b>   ENSEMBLES OF STRUCTURES REVEALED BY NMR Roland Riek (Switzerland)	<b>IL35</b>   FUNDAMENTAL PHYSICS WITH UNUSUAL MAGNETIC RESONANCE Dmitry Budker (Germany)	
	<b>046</b>   DNP-ENHANCED SSNMR SENSITIVITY: FREE RADICALS AT WORK Olivier Ouari (France)	<b>049</b>   INTERACTION OF METABOLITES WITH MACROMOLECULES IN HUMAN BLOOD PLASMA INVESTIGATION BY HIGH-RESOLUTION NMR RELAXOMETRY Ziqing Wang (France) 	<b>052</b>   FROM LASER PHYSICS TO THE PARA-HYDROGEN PUMPED RASER Sören Lehmkühl (Germany)	
11:15	<b>047</b>   PHIP ON A CHIP - HYPERPOLARISATION IN MICROFLUIDIC NMR William George Hale (United Kingdom)	<b>050</b>   NOAH: NMR SUPERSEQUENCES FOR SMALL MOLECULE ANALYSIS AND STRUCTURE ELUCIDATION Eriks Kupce (United Kingdom)	<b>053</b>   HYPERSTORE: TOWARDS STORAGE AND REMOTE TRANSPORT OF (HYPER) POLARISED ORDER VIA SUPERCRITICAL FLUIDS Giuseppe Pileio (United Kingdom)	
11:55	<b>048</b>   PROTEIN-LIGAND INTERACTION MONITORING BY DISSOLUTION-DNP AND LONG-LIVED DEUTERIUM SPIN STATES Dennis Kurzbach (France) 	<b>051</b>   DRAMATIC DECREASE IN CEST MEASUREMENT TIMES USING MULTI-SITE EXCITATION Guillaume Bouvignies (France)	<b>054</b>   3D SPIN NOISE IMAGING WITH ENHANCED SENSITIVITY Stephan Josef Ginthör (Austria)	

12:15	<p><b>IL32</b>   NOVEL MECHANISMS OF POLARIZATION PROPAGATION UNDER MAS DNP <i>Björn Corzilius (Germany)</i></p>	<p><b>IL34</b>   DISORDERED PROTEINS FUNCTION AND DYSFUNCTION: BEING CLOSER TO PHYSIOLOGICAL CONDITIONS MATTERS <i>François-Xavier Thelliet (France)</i></p>	<p><b>IL36</b>   ELECTRON SPINS HELP TO POLARISE, EXCITE AND DETECT INDIVIDUAL NUCLEAR SPINS <i>Dieter Suter (Germany)</i></p>
12:45-13:45	<p><b>Lunch</b> EXHIBITION AREA</p>		
12:45-13:45	<p><b>JEOL Workshop</b> ROOM 300</p>		
13:45-15:45	<p><b>Materials</b>   AUDITORIUM 800 <i>Chair: Sharon Ashbrook (United Kingdom)</i></p>	<p><b>Metabolomics and other «omics»</b> ROOM 300 <i>Chair: Bernhard Brutscher (France)</i></p>	<p><b>EPR/ESR</b>   ROOM 200 <i>Chair: Robert Bittl (Germany)</i></p>
13:45	<p><b>IL37</b>   CARBON CAPTURE AND MOFS: A ROLE FOR SSNMR <i>Jeff Reimer (USA)</i></p>	<p><b>IL39</b>   HUMAN AND IN VITRO METABOLOMICS IN HEALTH RESEARCH <i>Ana Gil (Portugal)</i></p>	<p><b>IL41</b>   SPIN-DEPENDENT PROCESSES IN ORGANIC SOLAR CELL MATERIALS <i>Jan Behrends (Germany)</i></p>
14:15	<p><b>O55</b>   TRANSITION METAL DOPING AND PHASE SEGREGATION IN <math>Mn^{2+}</math>- AND <math>Co^{2+}</math>-DOPED LEAD HALIDE PEROVSKITES FROM <math>^{13}C</math>S AND <math>^1H</math> NMR RELAXATION ENHANCEMENT <i>Dominik Kubicki (Switzerland)</i></p>	<p><b>O58</b>   IMPROVED NMR METHODS FOR <math>^{13}C</math> NMR BASED FLUXOMICS <i>Guy Lippens (France)</i></p>	<p><b>O61</b>   NANOSCALE ZERO-FIELD ELECTRON SPIN RESONANCE SPECTROSCOPY <i>Fei Kong (China) 🏆 MAGNETOCHEMISTRY AWARD</i></p>
14:35	<p><b>O56</b>   EXTRACTING THE REACTION AND AGING MECHANISM OF LITHIUM ION BATTERIES IN REAL TIME <i>Zigeng Liu (Germany)</i></p>	<p><b>O59</b>   OPTIMISATION OF DIFFUSION-ORDERED NMR SPECTROSCOPY METHODS FOR USE IN METABOLIC PROFILING OF HUMAN BIOFLUIDS <i>Nikita Harvey (United Kingdom)</i></p>	<p><b>O62</b>   LANTHANIDE BINDING TAGS AS SELF-ASSEMBLING GD(III) SPIN-TAGS FOR IN VIVO AND IN VITRO NANOMETRIC DISTANCE DETERMINATION IN PROTEINS <i>Leandro C. Tabares (France)</i></p>
14:55	<p><b>O57</b>   COMBINED SOLID-STATE NMR AND MOLECULAR DYNAMICS STUDY OF THE STRUCTURE OF STRONTIUM-ALUMINOSILICATE GLASSES <i>Thibault Charpentier (France)</i></p>	<p><b>O60</b>   NMR-BASED METABOLOMICS FOR NEW TARGET DISCOVERY AND PERSONALIZED MEDICINE: APPLICATION TO AGE-RELATED MACULAR DEGENERATION (AMD) <i>Pascal de Tullio (Belgium)</i></p>	<p><b>O63</b>   GD(III)-GD(III) DEER MEASUREMENTS ON PROTEINS AT W-BAND WITH AN ARBITRARY WAVEFORM GENERATOR – ADVANTAGES AND PITFALLS <i>Akiya Feintuch (Israel)</i></p>
15:15	<p><b>IL38</b>   FROM CRYSTALLINE TO AMORPHOUS CA-PHOSPHATE BIOMATERIALS: STRUCTURAL INSIGHTS USING MULTINUCLEAR SOLID-STATE NMR APPROACHES <i>Danielle Laurencin (France)</i></p>	<p><b>IL40</b>   ISOTOPOMIC <math>^{13}C</math> NMR <i>Serge Akoka (France)</i></p>	<p><b>IL42</b>   HUMAN AND IN VITRO METABOLOMICS IN HEALTH RESEARCH <i>Enrica Bordignon (Germany)</i></p>

15:45-16:15 Coffee break EXHIBITION AREA

**Closing Session Auditorium 800**

*Chair: Patrick Giraudeau (France)*

- |       |   |
|-------|---|
| 16:15 | <b>Presentation of JMR Awards,</b><br><i>Gunnar Jeschke</i>                           |
| 16:20 | <b>Presentation of MRC Awards,</b><br><i>Roberto Gil</i>                              |
| 16:25 | <b>Presentation of the Magnetochemistry EPR travel awards</b><br><i>Hervé Vezin</i>   |
| 16:30 | <b>Presentation of the FEBS Journal poster prizes,</b><br><i>Sophie Zinn-Justin</i>   |
| 16:35 | <b>Presentation of the Suraj Manrao Student poster prizes,</b><br><i>Suraj Manrao</i> |
| 16:45 | <b>Presentation of the FRISBI registration grants,</b><br><i>Bernhard Brutscher</i>   |
| 16:50 | <b>Presentation of the GERM travel grants,</b><br><i>Nicolas Giraud</i>               |
| 16:55 | <b>Closing remarks,</b><br><i>Patrick Giraudeau</i>                                   |
| 17:00 | <b>Closing remarks,</b><br><i>Thomas Prisner</i>                                      |
| 17:05 | <b>Next EUROMAR</b>   |

17:30-19:00 **Plenary Session AUDITORIUM 800**

*Chair: Hartmut Oschkinat (Germany)*

**THE QUANTUM SCIENCE OF ATOMS ON SURFACES – SINGLE SPIN ELECTRON SPIN RESONANCE**

17:30 *Andreas Heinrich (Republic of Korea)*

**NUCLEAR SPINS FAR FROM EQUILIBRIUM**

18:15 *Malcolm Levitt (United Kingdom)*

19:00-23:00 **EUROMAR Conference Dinner CONFERENCE CENTER**

## SPECIAL PROGRAMME SESSIONS



### BRUKER PRE-EUROMAR SYMPOSIUM

Sunday, July 1<sup>st</sup> | 12:00–16:00

AUDITORIUM 450 – LEVEL 2

Moderator: Alain Belguise

12:00	Registration & Lunch
13:00 – 13:25	Welcome and News from Bruker <i>Falko Busse</i>
13:25 – 13:45	AVANCE NEO: the workhorse for routine and research NMR <i>Clemens Anklin</i>
13:45 – 14:00	Solid-state NMR News: from fast-MAS to Dynamic Nuclear Polarization <i>Gerhard Althoff</i>
14:25 – 14:50	Break
14:50 – 15:10	CryoProbe and Probe News for High Resolution NMR <i>Aitor Moreno</i>
15:10 – 15:25	New technology for Bio-Solids: crossing the third frontier with the CP-MAS CryoProbe <i>Alia Hassan</i>
15:25 – 15:40	EMXnano: Making EPR Accessible <i>Manuela Liberi</i>
15:55	End



## JEOL WORKSHOP

Monday, July 2 | 12:45-13:45  
ROOM 300 – GROUND FLOOR

### **New Developments & Applications in Liquid-State NMR**

*Adolfo Botana, JEOL UK. Ltd.*



## MAGRITEK WORKSHOP

Tuesday, July 3 | 12:45-13:45  
ROOM 200 – LEVEL 2

### **Spinsolve ULTRA : quantifying composition of samples dissolved in protonated solvents**

*Frederico Casanova, Dr. Hélène freichels*



## MAGRITEK WORKSHOP

Wednesday, July 4 | 12:45-13:45  
ROOM 200 – LEVEL 2

### **Spinsolve 80 Carbon: Advanced NMR methods for structure confirmation**

*Andrew Coy, Fr Hélène Freichels*



## JEOL WORKSHOP

Thursday, July 5 | 12:45-13:45  
ROOM 300 – GROUND FLOOR

### **New Developments & Applications in Solid-State NMR**

*Kouji Yazawa, JEOL RESONANCE Inc.*



## GERM 30<sup>TH</sup> ANNIVERSARY SATELLITE MEETING

Friday, July 6<sup>th</sup> | 8:30-16:00

AUDITORIUM 200

*Upon pre-registration*

*Moderator: Nicolas Giraud*

08h30 - 08h50	Reception
08h50 - 09h00	<i>Welcome and Introduction</i>
09h00 - 09h30	Maurice Goldman
09h30 - 10h00	Muriel Delepierre
10h00 - 10h30	Daniel Canet
10h30 - 11h00	<i>Break</i>
11h00 - 11h30	Gérald Remaud
11h30 - 12h00	Luc Darasse
12h00 - 12h30	Dominique Massiot
12h30 - 14h00	<i>Lunch (Aperitif provided by courtesy of Bruker)</i>
14h00 - 14h30	GERM General Assembly
14h30 - 15h00	Hervé Vezin
15h00 - 15h30	Julien Valette
15h30 - 16h00	Geoffrey Bodenhausen

## PRIZES

### OPENING AND PRIZES SESSION

SUNDAY, JULY 1<sup>ST</sup> | 16:15–19:00 | AUDITORIUM 800 – LEVEL –1

#### RICHARD R. ERNST PRIZE IN MAGNETIC RESONANCE

The Ernst Prize is intended to award achievements going beyond fundamental research, for groundbreaking applications of new or of previously known techniques in all areas of magnetic resonance. It is intended for research published within the last three years, although the origins of the ideas and experiments may have been described in previous publications. In special cases, and at the discretion of the Prize Committee, the award may be for cumulative achievements over a longer period of time. The Ernst Prize is intended to be awarded to a single individual; however, it may be awarded to up to three scientists if the Prize Committee deems that their contributions to the development of the applications are of equal value. Former prize recipients are Alex Pines (2016) and Robert Griffin (2017).

The Prize comes with a purse of 10,000 Euros; it is sponsored by the Bruker BioSpin Corporation, and is awarded annually at the EUROMAR conference.

The 2018 Ernst Prize committee is made by Profs. Lucia Banci (chair), Lucio Frydman, Alex Pines, Robert Griffin, Wiktor Kozminski, Patrick Giraudeau and Hartmut Oschkinat.

#### AMPERE PRIZE

The AMPERE prize has recently been redefined and is now given to a young principle researcher (a “rising star”) for her/his first achievements in her/his independent career. There is no strict age limit but typically researchers below the age of forty are envisioned. The prize is given biannually. The prize carries a value of € 2000.

#### RAYMOND ANDREW PRIZE

In memory of Professor Dr. Raymond Andrew and to honor his pioneering work in the field of magnetic resonance, the AMPERE Groupe has founded the Raymond Andrew Prize. The Prize is awarded to young scientists for an outstanding PhD thesis in magnetic resonance.

### CLOSING SESSION & PRIZES FOR YOUNG SCIENTISTS

THURSDAY, JULY 5<sup>TH</sup> | 16:15–19:00 | AUDITORIUM 800 – LEVEL –1

#### JOURNAL OF MAGNETIC RESONANCE YOUNG SCIENTIST AWARDS



Elsevier sponsors four “Journal of Magnetic Resonance Young Scientist Awards” at the annual EUROMAR conference, consisting each of: a check of US\$500.00, a one-year electronic subscription to the Journal of Magnetic Resonance and a Certificate. The awards are given to graduate students or post-doctoral fellows, whose unsolicited submissions for an oral presentation have been selected based on excellence by the EUROMAR scientific program committee.



Before their oral presentations, the awardees are announced as winners of the “Journal of Magnetic Resonance” by the session chair or an editor of JMR (if present).

JMR would like to see these award-winning contributions submitted to the Journal within the 12 months prior to the EUROMAR in question. If that was not the case, we encourage the winners to submit such article to JMR within a year of the award.

**Recipients 2018:**

*Ole Brauckmann, Radboud University, Netherlands*

*Or Szekey, The Weizmann Institute of Science, Israel*

*Michael Mullen, University of Minnesota, USA*

*Shu-Hao Liou, Max Planck Institute for Biophysical Chemistry, Germany*

## MAGNETIC RESONANCE IN CHEMISTRY AWARD FOR YOUNG SCIENTISTS



The Magnetic Resonance in Chemistry Award for Young Scientists consists of three prizes of 500 Euros awarded to young scientists who have submitted an outstanding abstract for the Euromar 2018 conference. The awardees have been selected by the scientific committee of the conference from the abstracts submitted for an oral presentation.

**Recipients 2018:**

*Ziqing Wang, ENS/Sorbonne University/CNRS, France*

*Chaowei Shi, Leibniz-Forschungsinstitut fuer Molekulare Pharmakologie FMP, Germany*

*Davy Sinnaeve, Ghent University, Belgium*

## MAGNETOCHEMISTRY EPR TRAVEL AWARDS

The journal Magnetochemistry (ISSN 2312-7481, <http://www.mdpi.com/journal/magnetochemistry>) is very pleased to offer two 200 € travel grants, awarded to young scientists who have submitted an outstanding abstract in the field of EPR at EUROMAR 2018. The awardees will be identified by the scientific committee

**Recipients 2018:**

*Peter Szirmai, Ecole Polytechnique Fédérale de Lausanne, Switzerland*

*Fei Kong, University of Science and Technology, China*

## FEBS JOURNAL POSTER PRIZE

The FEBS Journal is very pleased to offer two 200-euro poster prizes at EUROMAR 2018. The journal has a long history of supporting early career scientists and is delighted to recognise their important contributions at this meeting.

**Recipients 2018:**

*Mumdooh Ahmed, University of Hannover, Germany*

*Whitney Costello, University of Texas Southwestern Medical Center, US*

## FRISBI REGISTRATION GRANT



The French Infrastructure for Integrated Structural Biology (FRISBI: <http://frisbi.eu/>) provides an infrastructure for integrative structural biology approaches, from the molecular to the cellular level, integrating multi-resolution data from X-ray crystallography, small angle X-ray scattering, NMR, Cryo-EM and functional data including development for protein expression and crystallization. It is open to structural and molecular and cell biologists from both academia and industry from France and Europe. In the frame of EUROMAR 2018, FRISBI sponsors the early-bird registration of 4 students working in France in the field of Structural Biology.

### Recipients 2018:

Louise Pinet, ICSN, CNRS, France  
Diane Cala-De Paepe, Institut des Sciences Analytiques, France  
Rachel Lenoir-Capello, Sorbonne Université, France  
Wiktor Adamski, CEA, CNRS, University Grenoble Alpes, Grenoble, France

## GERM TRAVEL GRANTS



The French group for the study of magnetic resonance (GERM - <http://germ.asso.fr>) offers 2 travel grants of 250€ to students working in French laboratories, on the basis of their abstract submitted to the Euromar Conference. Registration as a student according to the Registration Terms & Conditions, and abstract submission are sufficient to be considered for a stipend application.

### Recipients 2018:

Marianna Porcino, CNRS, France  
Emmanuelle Weber, ENS - Paris, France

## SURAJ MANRAO STUDENT POSTER PRIZES

The EUROMAR Conference announces that the SURAJ MANRAO STUDENT TRAVEL FUND will offer 10 best poster prizes of \$ 100 US each for the best posters during the conference. SURAJ MANRAO Student Travel Fund contributes student travel/poster awards for major International NMR Conferences.

### Recipients 2018:

Henry William Orton, Australian National University, Australia  
Alexandre Poulhazan, Université du Québec à Montréal (UQAM), Canada  
Kebiao Xu, University of Science and Technology of China, China  
Stepan Hornik, Institute of Chemical Process Fundamentals of the CAS, Czech Republic  
Fanni Sebák, Eötvös Loránd University, Hungary  
Deepak Khurana, Institute of Science Education and Research, India  
Shota Kato, Tokyo Institute of Technology, Japan  
Dion Thomas, Victoria University of Wellington, New Zealand  
Bogdan Aleksandrovich Rodin, International Tomography Center, Russian Federation  
Alper Soyler, Middle East Technical University, Turkey

## STUDENT STIPENDS

Thanks to support from the AMPERE Society and from the EUROMAR, the 179 students who registered before May 31<sup>st</sup> have received a stipend covering part of their expenses.



## SPEAKERS

### PLENARY SPEAKERS

David Bryce, *University of Ottawa, Canada*  
Brad Chmelka, *University of California, Santa Barbara, USA*  
Ivan Dmochowski, *University of Pennsylvania, USA*  
Melinda Duer, *University of Cambridge, United Kingdom*  
Lucio Frydman, *Weizmann Institute of Science, Israel*  
Daniella Goldfarb, *Weizmann Institute of Science, Israel*  
Stephan Grzesiek, *University of Basel, Switzerland*  
Andreas Heinrich, *Center for Quantum Nanoscience, Republic of Korea*  
Malcolm Levitt, *University of Southampton, United Kingdom*  
Eric McInnes, *University of Manchester, United Kingdom*  
Daniel Raftery, *University of Washington, USA*  
Harald Schwalbe, *Johann Wolfgang Goethe-Universität, Germany*  
Lawrence Wald, *Massachusetts General Hospital, USA*

### TUTORIAL SPEAKERS

Sami Jannin, *Université Claude Bernard de Lyon, France*  
Anne Lesage, *CNRS, France*  
Gareth Morris, *University of Manchester, United Kingdom*

Tutorial sessions are recorded  
and will be available online after  
the conference.

### INVITED SPEAKERS

Serge Akoka, *Université de Nantes, France*  
Sharon Ashbrook, *University of St Andrews, United Kingdom*  
Ad Bax, *NIH, USA*  
Jan Behrends, *Freie Universität Berlin, Germany*  
Patrice Bertet, *CEA Saclay, France*  
Patrick Berthault, *CEA Saclay, France*  
Mark Bird, *Florida State University, USA*  
Anja Böckmann, *CNRS/Université de Lyon, France*  
Enrica Bordignon, *Ruhr University Bochum, Germany*  
Russ Bowers, *University of Florida, USA*  
Dmitry Budker, *Helmholtz Institute Mainz, Germany*  
Laura Castanar, *University of Manchester, United Kingdom*  
Björn Corzilius, *Goethe University Frankfurt, Germany*  
Jean-Nicolas Dumez, *CNRS, France*  
Lyndon Emsley, *EPFL, Switzerland*  
Matthias Ernst, *ETH Zürich, Switzerland*

Cornelius Faber, *University Hospital Münster, Germany*  
 Ana Gil, *University of Aveiro, Portugal*  
 Roberto Gil, *Carnegie Mellon University, USA*  
 Amir Goldbourt, *Tel Aviv University, Israel*  
 Damien Jeannerat, *University of Geneva, Switzerland*  
 Gunnar Jeschke, *ETH Zurich, Switzerland*  
 Dorothee Kern, *Brandeis University/HHMI, USA*  
 Danielle Laurencin, *CNRS, France*  
 Pat Loria, *Yale University, USA*  
 Luís Mafrá, *CICECO – Aveiro Institute of Materials, University of Aveiro, Portugal*  
 Frédéric Mentink-Vigier, *National High Magnetic Field Laboratory, USA*  
 Hartmut Oschkinat, *Leibniz-Forschungsinstitut für Molekulare Pharmakologie, Germany*  
 Jeff Reimer, *UC Berkeley, USA*  
 Roland Riek, *ETH Zurich, Switzerland*  
 Paul Schanda, *Institut de Biologie Structurale, France*  
 Hermann Scharfetter, *Graz University of Technology, Austria*  
 Dieter Suter, *TU Dortmund, Germany*  
 Michael Tayler, *University of Cambridge, United Kingdom*  
 Ville-Veikko Telkki, *University of Oulu, Finland*  
 Marco Tessari, *Radboud University, Netherlands*  
 François-Xavier Theillet, *CNRS, France*  
 Christina Thiele, *TU Darmstadt, Germany*  
 Martin Tollinger, *University of Innsbruck, Austria*  
 Julien Valette, *Commissariat à l'Energie Atomique, France*  
 Patrick Van Der Wel, *University of Pittsburgh, USA*  
 Xin Zhou, *Wuhan Institute of Physics and Mathematics, The Chinese Academy of Sciences, China*

## CONTRIBUTED TALKS FROM ABSTRACTS

Marc Baldus, *Utrecht University, Netherlands*  
 Guillaume Bouvignies, *CNRS / Ecole Normale Supérieure, France*  
 Ole Brauckmann, *Radboud University, Netherlands*  
 Carlo Botha, *Karlsruhe Institute of Technology, Germany*  
 Björn M. Burmann, *University of Gothenburg, Sweden*  
 Olivier Cala, *Université Claude Bernard Lyon 1, France*  
 Morgan Ceillier, *Université Claude Bernard Lyon 1, France*  
 Thibault Charpentier, *CEA Saclay, France*  
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 Akiva Feintuch, *Weizmann Institute of Science, Israel*  
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 William George Hale, *University of Southampton, United Kingdom*  
 Nikita Harvey, *Imperial College London, United Kingdom*

Sabine Hediger, *Institut Nanosciences et Cryogénie, France*  
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 Zigeng Liu, *Max-Planck Institute for Chemical Energy Conversion, Germany*  
 Burkhard Luy, *KIT, Germany*  
 Lingceng Ma, *Electronic Science and Technology College, Xiamen University, China*  
 Sina Marhabaie, *Ecole Normale Supérieure, France*  
 Markus Meissner, *Karlsruhe Institute of Technology, Germany*  
 Vladimir Michaelis, *University of Alberta, Canada*  
 Giulia Mollica, *CNRS, France*  
 Michael Mullen, *University of Minnesota, USA*  
 Pierre-Jean Nacher, *LKB-ENS, France*  
 Yusuke Nishiyama, *JEOL Resonance Inc., Japan*  
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 Thomas Theis, *Duke University, USA*  
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 Juha Vaara, *University of Oulu, Finland*  
 Ziqing Wang, *ENS/Sorbonne University/CNRS, France*  
 Christopher Waudby, *University College London, United Kingdom*  
 Nino Wili, *ETH Zurich, Switzerland*  
 Shengqi Xiang, *Utrecht University, Netherlands*



## POSTERS

405 posters have been successfully accepted. Poster will be displayed continuously from Sunday, July 1<sup>st</sup> to Thursday, July 5<sup>th</sup> in the Poster Area on the ground floor.

Three poster sessions have been scheduled:

**Poster Session 1 – Monday, July 2<sup>nd</sup> | 13:45–15h45 | even numbers**

**Poster Session 2 – Tuesday, July 3<sup>rd</sup> | 13:45–15h45 | odd numbers**

**Poster Session 3 – Wednesday, July 4<sup>th</sup> | 13:45–15h45 | even and odd numbers**

Mounting materials will be supplied by the Conference and available at the welcome desk. Conference staff will be present to assist you for finding your board and mounting your poster.

Presenting authors are kindly requested to be present throughout the official Poster Sessions in order to explain their research and to answer questions from the delegates. In addition participants will also have a possibility to view posters during the breaks and lunches therefore authors are encouraged to be present at their posters during those times as well.

**Mounting (poster area)**

Sunday, 1<sup>st</sup> July 2018

From 12:00 to 20:00

**Removing (\*)**

Thursday, 5<sup>th</sup> July 2018

From 13:45 to 18:45

*(\*) Poster should be removed at the stated times.*

The organisers are not responsible for loss or damage of those posters which are not removed by authors within the times of dismantling as indicated above. Authors will not be able to retrieve posters they have not removed in time.

# LIST OF POSTERS

ALL ABSTRACTS CAN BE READ ON THE WEBSITE AND CONFERENCE APP

## BENCHTOP AND LOWFIELD

**P001** | Applications of compact NMR to nondestructive testing and reaction monitoring

*Bernhard Bluemich (Germany)*

**P002** | Diffusion-ordered spectroscopy on a benchtop spectrometer for drug analysis

*Gaëtan Assemat (France)*

**P003** | Online monitoring of the kinetic isotope effect in chemical reactions with  $^1\text{H}$  and  $^{19}\text{F}$  low-field NMR spectroscopy

*Bernhard Bluemich (Germany)*

**P004** | The possibilities of benchtop (60 MHz)  $^1\text{H}$  NMR spectrometers for semiempirical determination of aromatic carbon atoms (Car) content in petroleum and its products

*Bulat Sadykov (Russian Federation)*

**P005** | Analysis of poor-quality medicines using Low-Field Benchtop NMR Spectroscopy

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**P006** | Low field NMR relaxation studies of cement materials containing silica fume

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**P007** | A new approach to interpret non-negative least squares (NNLS) relaxation results

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**P009** | Implementation of standard ASTM  $^{19}\text{F}$  method on a benchtop NMR 43 MHz in comparison with high magnetic field performance for the determination of primary hydroxyl content of polyols

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 **SURAJ MANRAO STUDENT POSTER PRIZE**

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*Thomas Castaing-Cordier (France)*

**P013** | Potential of benchtop quantitative NMR for monitoring enzyme catalyzed reactions

*Alper Soyler (Turkey)*

 **SURAJ MANRAO STUDENT POSTER PRIZE**

**P014** | Medium resolution  $^1\text{H}$ -NMR at 62 MHz as a chemically sensitive online detector for chromatography of polymers (SEC-NMR)

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🏆 FRISBI REGISTRATION GRANT

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🏆 FRISBI REGISTRATION GRANT

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 **FRISBI REGISTRATION GRANT**

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Xiaolu Li (Germany)

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Volker Schmidts (Germany)

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**P384** | NMR structure, dynamics and interaction of the proapoptotic death receptor 5/ TRAIL-R2 with synthetic ligands

*Antoine Baudin (France)*

**P385** | Opportunities offered by trifluoromethylated pseudoproline residues in the peptide design as assessed by solution state NMR investigations

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**P396** | Evaluation of Excitation Schemes for Use in Indirect Detection of Nitrogen-14 via Solid-State HMQC NMR Experiments

*Andrew Rankin (France)*

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*Natalia Fulik (Germany)*

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**P405** | Combining segmental and specific labelling with DNP NMR to study amyloid proteins

*Kendra Frederick (USA)*

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*Matthias J. Brandl (Germany)*

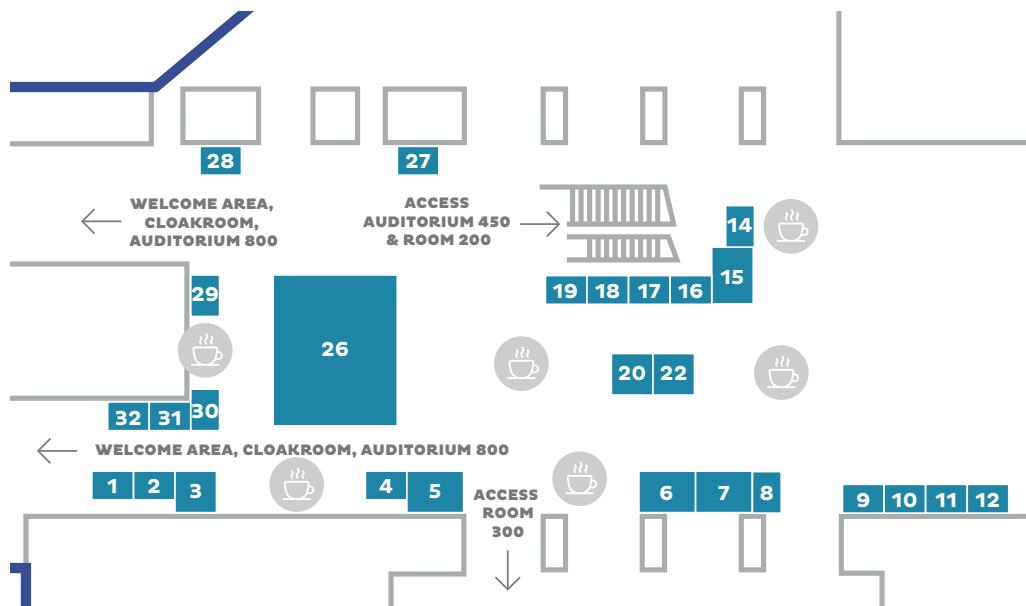
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*Eriks Kupce (United Kingdom)*

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*Guido Pintacuda (France)*

## EXHIBITION FLOORPLAN



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BOOTH # 15



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## EMERGENCY NUMBERS

The pan-European emergency number 112 can be called for any type of emergency and an operator will direct you to the appropriate French department. Alternatively, specific services can be reached as follows:

- Fire brigade: 18
- Police: 17
- Accident and Emergency: 15

## FOOD AND BEVERAGES

Coffee breaks and lunches are included in the registration fee and will be served in the exhibition area (ground floor) in allocated time.

## HEALTH SERVICES

Chemists (called pharmacie in France) are usually open straight through from 8h30-19h30. They take it in turns to close on Sundays and also sometimes on Mondays. When a chemist is closed, the addresses of the nearest duty chemists are displayed on the door. A few chemists remain open late and even all night.

In case of emergency, the pan-European emergency number 112 can be called for any type of emergency. Or alternatively dial `15` for Accident and Emergency. For further information on the French Medical system you can visit the "assurance maladie" website [www.ameli.fr](http://www.ameli.fr) (website in French).



## WIFI

Free Wi-Fi internet connection is available in all conference spaces.

- NETWORK: EUROMAR
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EUROMAR and MCI France as organisers will accept no liability for personal injuries sustained by or for loss or damage to property belonging to congress participants and accompanying persons either during or as a result of the Congress or during all tours and events.

## LOST AND FOUND

Lost & Found service is available at the welcome desk during opening hours.

## NATIONAL AND INTERNATIONAL CALLS

The France country code 33 will allow you to call France from another country (use the international access code 00 prior to dialing 33), followed by an area code.

All French numbers have 10 digits and begin with 0. The prefix for Nantes numbers is 09 and mobile numbers start with 07.

0 800 and 0 804, 0 805, 30 00, 31 44, 36 55 all denote a free service. Other special telephone numbers have specific tariffs from land lines.

Contact your mobile phone operator who will confirm whether or not your mobile is compatible with the French network and also explain how you will be charged for calls received from your own country or that you make while abroad (local and international calls).

## METRIC MEASURES

The system of measurement used in France is the metric system, and temperatures are expressed in degrees Centigrade.

It's worth noting too, that in France decimals are indicated by a comma and not a point, as in English-speaking countries.

### Registration Opening Hours

Sunday, July 1 <sup>st</sup> :	12:00-19:00
Monday, July 2 <sup>nd</sup> :	07:30-19:00
Tuesday, July 3 <sup>rd</sup> :	07:30-19:00
Wednesday, July 4 <sup>th</sup> :	07:30-19:00
Thursday, July 5 <sup>th</sup> :	07:30-19:00

## TIME ZONE

Nantes is in the Central European Time Zone. You can see Nantes' time in relation to most cities on the globe by visiting [www.TimeAndDate.com](http://www.TimeAndDate.com)

## TIPPING

In France, prices shown include tax and service. However, if the service has been particularly good, you may wish to leave a tip in order to show your appreciation. As a general rule, the amount is 5 to 10% of the total bill.



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## NOTES

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