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AMPERE

SE CONNAÎTRE, S'ENTENDRE, D'ENTR'AIDER

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If you would like to become a member of the AMPERE Group, you can register online under: **www.ampere.ethz.ch**

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Editorial

Dear AMPERE colleagues,

this year our annual congress EUROMAR took place in Florence (Italy) as a joint conference with the 17th ISMAR (p. xy), July 4th-9th 2010. This event, also dubbed Worldwide Magnetic Resonance Conference 2010 (WWMR 2010), was the largest magnetic resonance conference ever, with 1219 delegates. Smooth organization and strict timing of the many parallel sessions made this a very efficient event for getting informed on the most exciting new developments in our field. Because of the large choice of talks, participants did not find the time to visit the wonderful city of Florence during the week. However, the evening event in Boboli Garden of Palazzo Pitti as well as the Conference Center right in the city center of Florence gave us nice very impressions of the location as well. On behalf of Groupement AMPERE, I wish to extend my great thanks to all organizers, in particular, Ivano Bertini, Lucia Banci, and Claudio Luchinat.

During this conference, a Bureau meeting (p.y), the biannual meeting of the AMPERE Committee (p. z), and the General Assembly (p. a) took place. Juras Banys (Lithuania), Anne-Laure Barra (France), Martin Blackledge (France), Isabella Felli (Italy), Daniella Goldfarb (Israel), and Sabine Van Doorslaer (Belgium) were elected new committee members. Teresa Nunez retired from the committee.

Please mark the date for the next EUROMAR meeting in your agenda: it takes place somewhat later next year August 21st-25th 2011 in Frankfurt/Main, Germany and is a joint meeting with the discussion group Magnetic Resonance of German Chemical Society (GDCh) as well as with the meeting of the European Federation of EPR groups (EF-EPR). As I gather from the organizers, poster sessions will feature prominently during this conference and a significant number of poster submissions will be promoted to the oral sessions. Don't miss the opportunity!



Gunnar Jeschke
Secretary General of Groupement AMPERE

Minutes of the meeting of the AMPERE Bureau

in Florence, on July 6th, 2010

Members Present:

R. Blinc, G. Bodenhausen, J. Dolinsek, M. Ernst, D. Goldfarb, G. Jeschke, B. Maraviglia, B. Meier, G. Smith, H. W. Spiess.

Agenda:

1. Preparation of the meeting of the AMPERE Committee and the General Assembly on 7.7.2010

2. Varia

At 13:25 hours G. Jeschke opened the meeting. The agenda was approved unanimously.

Ad 1. G. Jeschke suggested the following agenda for the meeting of the AMPERE Committee:

1. Approval of the minutes of the AMPERE Committee on 8.7.2008 in St. Petersburg.
2. Report of the president
3. Financial report of the secretary general
4. Vote on the change of statute
5. Election of the executive officers
6. Election of the prize committee
7. Election of new committee members
8. Varia

- The suggested agenda for the Committee meeting was accepted and the various points discussed.

- G. Jeschke presented the financial report. The main income is from the membership fees and there was a gain of about 20000 CHF. The detailed report is printed in the appendix to the minutes.

- The suggested change of the statute to make the membership in the committee limited to six years had no negative feedback but was generally supported. It should be stressed that the old members will retain their lifelong membership status.

- Daniella Goldfarb will step down as vice president. The Bureau will suggest Janez Dolinsek as candidate for the position as vice president.

- Three of the four members of the prize committee would like to retire (R. Blinc, R. Ernst, J. Schmidt) while H.-W. Spiess will be available for another term as chairman of the prize committee. The AMPERE Bureau will suggest the following members of the prize committee: H.-W. Spiess (chair), D. Goldfarb, R. Kaptein, M. Smith. This will be a very balanced prize committee that covers all areas of magnetic resonance.
- The AMPERE Bureau discussed the election of new AMPERE Committee members that will be suggested for election at the Committee meeting on July 7. The only member stepping down will be Teresa Nunes (Portugal).

Ad 2. The program of the EUROMAR 2010 turned out much more balanced than anticipated. There was a significant amount of talks from the physics community but it would have been good if this had been clearer at an earlier stage so that more people from that field could have participated. It would be good to have clearer session (and poster) labels for more structure and a better overview. It would also be good to leave more slots for promoted poster talks.

At 14:20 hours B. Meier closed the meeting and thanked all the present members for their time and effort.

Florence, 6.7.2010
Matthias Ernst

Minutes of the meeting of the AMPERE Committee

in Florence, on July 7th, 2010

Members Present:

R. Blinc, G. Bodenhausen, R. Boelens, V. Chizhik, J. Dolinsek, M. Ernst, P. Fantazzini, D. Fiat, D. Goldfarb, C. Griesinger, G. Jeschke, S. Jurga, J.-P. Korb, W. Lubitz, B. Meier, G. Papavassiliou, F. Poulsen, H.-W. Spiess, D. Suter, D. Ailion (guest)

Excused: Ion Geru, Astrid Gräslund, Luidvikas Kimtys, Claudio Luchinat, Dieter Michel, Teresa G. Nunes, Jiri Spevacek

Agenda:

1. Approval of the Agenda
2. Approval of the minutes of the AMPERE Committee meeting in St. Petersburg, July 8th, 2008
3. Report of the president on the state of the AMPERE Society (B. H. Meier)
4. Report of the secretary general (G. Jeschke)
5. Vote on the proposed change in the Statutes of the Groupement AMPERE
6. Elections of executive officers and honorary members of the Bureau
7. Elections of the Prize Committee for the AMPERE and Raymond Andrew Prizes
8. Election of new AMPERE Committee members and honorary members
9. Varia

At 13:20 hours B. Meier opened the meeting.

Ad 1. The agenda was approved unanimously.

Ad 2. The minutes of the AMPERE Committee meeting in St. Petersburg, July 8th, 2008, published in the AMPERE Bulletin 231/232, were approved unanimously.

Ad 3. B. Meier delivered his report on the state of the Groupement AMPERE over the past two years, which is given in the appendix to these minutes. He noted that the EUROMAR conference was a very successful and good meeting. It is important to enable graduate students to come to this meeting which could be achieved through the EMAR grant from the ESF. Since this grant will run out

next year, new funding sources have to be secured for this purpose. Besides the EUROMAR conference, there are many more specialized meetings and summer schools under the umbrella of the AMPERE group that are very important for the field of magnetic resonance. It is planned to have more and better information about the various activities distributed through a web page.

During the past two years Jan Stankowski and G. Raoult passed away that were both very active members of the AMPERE group.

Ad 4. G. Jeschke gave an overview (see appendix) over the finances of the Groupement AMPERE. The finances are good. The financial report has to be approved by the general assembly. The AMPERE Committee accepted the report and the work of the whole Bureau during the past two years unanimously.

Ad 5. As discussed in St. Petersburg, the AMPERE Bureau suggests a change in the statutes of the Groupement AMPERE:

“The AMPERE Committee consists of the president, the secretary general, the members of the executive committee (AMPERE Bureau), one or more representatives of each European country of members, and of some eminent scientists, coopted by the other members of the committee. **Committee membership expires after six years. The committee can reelect members for another period of six years.**”

Current members will retain their lifelong membership but inactive members will be urged to retire from the Committee. The secretary general was asked to make a list with the name of the members and the length of their membership in the Committee as well as a list of countries and the number of their representatives. The change of the statutes was approved unanimously.

Ad 6. The Vice President, Prof. Daniella Goldfarb, decided to step down as an officer of the Groupement AMPERE. The AMPERE Bureau proposes the reelection of all other Bureau members in their current offices and the election of Janez Dolinsek as Vice President. The AMPERE Committee followed the recommendation of the Bureau and all members of the Bureau were reelected unanimously in a secret ballot.

Ad 7. Three members of the AMPERE prize committee stepped down (Richard Ernst, Robert Blinc, and Jan Schmidt). The president thanked all the members for their work. The AMPERE Bureau suggests the following members for the AMPERE prize committee: Hans-Wolfgang Spiess (Chair), Daniella Goldfarb, Rob Kaptein, and Mark Smith. The AMPERE Committee followed the recommendation of the Bureau and elected the Prize Committee by acclamation.

Ad 8. The AMPERE Bureau proposes the following changes to the AMPERE Committee: Teresa Nunez wishes to retire from the Committee. The AMPERE Committee elected the following people in a secret ballot into the Committee: Juras Banyys (Lithuania), Anne-Laure Barra (France), Martin Blackledge (France), Isabella Felli (Italy), Daniella Goldfarb (Israel), Sabine Van Doorslaer (Belgium). It recommends approval of these changes to the general assembly.

Ad 9. Varia:

Hans-Wolfgang Spiess informed about the ISMAR council meeting. The next ISMAR conference will be held in Rio de Janeiro in May 2013 to avoid overlap with the EUROMAR conference in Crete. ISMAR plans to coordinate schools and meetings outside Europe and the US in a way similar to the activities of AMPERE.

At 14:30 hours B. Meier closed the meeting and thanked all the present Committee members for their time and effort.

Florence, 7.7.2010
Matthias Ernst

Minutes of the General Assembly of the Groupement AMPERE

in Florence, on July 7th, 2010

Agenda:

1. Approval of the Agenda
2. Approval of the minutes of the General Assembly in St. Petersburg, July 8th, 2008
3. Report of the president on the state of the AMPERE Society (B. Meier)
4. Financial report of the secretary general (G. Jeschke)
5. Information on a change in the statutes of the Groupement AMPERE
6. Information on the new Prize Committee
7. Elections of executive officers of the Bureau and of new Committee members
8. Varia

At 19:00 hours B. Meier opened the meeting.

Ad 1. The agenda was approved unanimously.

Ad 2. The minutes of the General Assembly of the Groupement AMPERE in St. Petersburg, July 8, 2008, published in the AMPERE Bulletin 231/232, were approved unanimously.

Ad 3. B. Meier delivered his report on the state of the Groupement AMPERE over the past two years, which is given in the appendix to these minutes. He noted that the EUROMAR conference was a very successful and good meeting. It is important to enable graduate students to come to this meeting which could be achieved through the EMAR grant from the ESF. Since this grant will run out next year, new funding sources have to be secured for this purpose. Besides the EUROMAR conference, there are many more specialized meetings and summer schools under the umbrella of the AMPERE group that are very important for the field of magnetic resonance. It is planned to have more and better information about the various activities distributed through a web page. During the past two years Jan Stankowski and G. Raoult passed away that were both very active members of the AMPERE group.

Ad 4. G. Jeschke explained the finances of the Groupement AMPERE (see appendix). The assembly approved the financial report unanimously.

Ad 5. The statutes of the Groupement AMPERE were amended with the following two sentences: "Committee membership expires after six years. The committee can reelect members for another period of six years." The AMPERE Committee has approved this change unanimously.

Ad 6. Three members of the AMPERE prize committee stepped down (Richard Ernst, Robert Blinc, and Jan Schmidt). The president thanked all the members for their work. The AMPERE Committee has elected the following members for the AMPERE prize committee: Hans-Wolfgang Spiess (Chair), Daniella Goldfarb, Rob Kaptein, and Mark Smith.

Ad 7. The election of the Bureau members through the AMPERE committee was approved by the general assembly unanimously. The changes to the AMPERE Committee as proposed by the Bureau and the Committee (resignation of Theresa Nunez, appointment of Juras Banys (Lithuania), Anne-Laure Barra (France), Martin Blackledge (France), Isabella Felli (Italy), Daniella Goldfarb (Israel), Sabine Van Doorslaer (Belgium)) was approved unanimously.

Ad 8. There were no points discussed under varia.

At 19:20 hours B. Meier closed the meeting and thanked all the present AMPERE members for their time and effort.

Florence, 7.7.2010

Matthias Ernst

Financial Situation of the Groupement AMPERE

Balance of the Accounts of the Groupement Ampere

periode from July 1. 2008 to July 1. 2010

Situation July 1. 2008

Total fortune: 204'540.50

	Debit	Credit
Membership Fees		14'741.25
Individual members	6686.85	
Associate members	8054.40	
 Conferences & Prices		
Conferences	8164.52	30'663.85
Prizes 2009 & 2010 (Euro* each 500)	1320.38	
* The exchange rate for the prizes 09/10 is of 2.July 2010.		
 Administration	7551.20	
Ampere Bulletin & Bureau Meetings Zurich	3544.75	
Travel expenses Euomar	3019.80	
Computer Program and fees	986.65	
Multipay adjusting posting	2008.95	
Multipay adjusting posting		1369.57
Miscellaneous charges	121.30	
 Bank		
Interests Portfolio		3361.80
Interests Bank accounts		1450.95
Handling costs (Bank, Visa, Mastercard, Multipay)	1505.50	
Booking difference Portfolio		9033.69
aquisition of securities	10'139.15	
 Total CHF	30'811	60'621.11
 Balance		
Balance July 1. 2008		204'540.50
Total of receipts		60'621.11
Total of expenditure		30'811.00
Balance of July 1. 2010		234'350.61
 On accounts per July 1. 2010, Total CHF		234'350.61

WWMR Lectures and Statistics

Ampere, Ismar and Andrew Prizes

AMPERE PRIZE: Clare P. Grey	Stony Brook University, New York (NY), USA Energy Storage and Conversion: Using Local Structural Probes to Understand and Optimise the Functioning of Battery and Fuel Cell Materials
ISMAR PRIZE: Robert G. Griffin	Massachusetts Institute of Technology, Cambridge (MA), USA High Frequency Dynamic Nuclear Polarization in Rotating Solids and Liquids
ANDREW PRIZE: Benjamin J. Wylie	Columbia University, New York (NY), USA Solid-state Magic-angle Spinning NMR Methods for Tensor Measurements and Protein Structure Refinement Using Chemical Shift Tensors

Preconference Lecture

Ray Freeman	University of Cambridge, Cambridge, United Kingdom „Speed“
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Plenary Lectures

Lyndon Emsley	Université de Lyon, Villeurbanne, France NMR on Surface
Richard R. Ernst	ETH Zürich, Zürich, Switzerland Why NMR and MRI, as useful as they are for analyzing art, are sometimes outperformed by other techniques, such as RAMAN
Christian Griesinger	Max Planck Institute for Biophysical Chemistry, Göttingen, Germany Molecular Dynamics and Neurodegeneration as seen by NMR spectroscopy
Charalampos G. (Babis) Kalodimos	Rutgers State University, Piscataway (NJ), USA Structural and Dynamic Basis for the Assembly of Protein Machineries by NMR

Sarah J. Nelson	University of California, San Francisco (CA), USA In vivo applications of MR physiological and metabolic imaging
Hitoshi Ohta	Kobe University, Kobe, Japan Developments and Applications of Multi-Extreme THz ESR System
Daniel Rugar	IBM Almaden Research Center, San Jose (CA), USA Force-detected nanoscale MRI: recent progress and challenges ahead
Frances Separovic	University of Melbourne, Victoria, Australia Resolving antimicrobial and amyloid peptides in membranes

Highlights of the Conference

Silvio Aime	University of Torino, Torino, Italy Advances in Bioimaging
Malcolm H. Levitt	University of Southampton, Southampton, United Kingdom Advances in Methods and Spectroscopy
Brian D. Sykes	University of Alberta, Canada Advances in bioNMR

Session Lectures

Hideo Akutsu	Institute for Protein Research, Osaka, Japan Solid-state NMR analysis of H ⁺ -ATP synthase subunit c-ring in membranes
Stephan Appelt	Research Center Jülich, Jülich, Germany New developments in low field NMR
Jan Henrik Ardenkjaer-Larsen	GE Healthcare, Frederiksberg, Denmark New developments in dissolution-DNP for in vivo imaging

Fabio Arnesano	University of Bari, Bari, Italy Interaction of cisplatin with transport proteins: solution and in-cell NMR studies
Cheryl Arrowsmith	Structural Genomics Consortium, Toronto (ON) , Canada Structural genomics of chromatin interacting proteins
Alexander S.Arseniev	Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russia Structures and dynamics of bitopic and polytopic membrane helical proteins
Sharon E. Ashbrook	University of St Andrews, St Andrews, United Kingdom Investigating disorder in ceramics: Multinuclear solid-state NMR and first-principles calculations
Vikram Bajaj	Lawrence Berkeley National Laboratory, Berkeley (CA), USA Remotely Detected Magnetic Resonance Imaging and Velocimetry
Marc Baldus	University of Utrecht, Utrecht, The Netherlands Selective membrane transport systems investigated by solid-state NMR spectroscopy
Pavel G. Baranov	AF Ioffe Physical-Technical Institute, St Petersburg, Russia Magnetic resonance in semiconductor nanostructures: EPR, ESE, ENDOR and ODMR studies
Anne-Laure Barra	CNRS, Grenoble, France HF-EPR study of Magnetic anisotropy in Single-Molecule Magnets
Adriaan Bax	NIDDKD, Bethesda (MD), USA The sticky fingers of influenza visualized by modern solution NMR
Marina Bennati	Max Planck Institute for Biophysical Chemistry, Gottingen, Germany Studies of Dynamic Nuclear Polarization (DNP) in Liquids: Understanding the Overhauser Mechanism for New Experimental Designs

Martin Billeter	Göteborg University, Göteborg, Sweden Principles and practice of projection-decomposition tools for resonance assignments and protein structure
Robert Bittl	Free University of Berlin, Berlin, Germany EPR/ENDOR on complex metal centers in enzymes - from single crystals to whole cells
Aharon Blank	Technion Israel Institute of Technology, Haifa, Israel Measurement of complex diffusion in the micro-sec time scale and 10 nm length scale by electron spin resonance
Bernhard Blümich	Rhein Westfal TH Aachen, Aachen, Germany Mobile NMR and Cultural Heritage
Anja Böckmann	CNRS, Lyon, France Structural studies of prion fibrils by solid-state NMR spectroscopy
Rolf Boelens	Utrecht University, Utrecht, The Netherlands Dynamics of ubiquitination complexes
Enrica Bordignon	ETH Zurich, Zurich, Switzerland Maltose and vitamin B12 importers: modeling the conformational changes during transport with interspin distance restraints
Mauro Botta	University of Piemonte Orientale "Amedeo Avogadro" Alessandria, Italy Optimizing the relaxivity of macromolecular MRI contrast agents
Michael K. Bowman	University of Alabama, Tuscaloosa (AL), USA High-Resolution Pulsed EPR: Separating and Connecting Peaks
Rosa Tamara Branca	Duke University, Durham (NC), USA Detection of Brown Adipose Tissue Using Intermolecular Zero Quantum Coherences
Kevin M. Brindle	University of Cambridge, Cambridge, United Kingdom Detecting tumour responses to treatment using hyperpolarized ¹³ C magnetic resonance spectroscopic imaging

Steven P. Brown	University of Warwick, Coventry, United Kingdom High-resolution solid-state NMR methods for the structural characterisation of organic solids
Rafael Bruschweiler	Florida State University, Tallahassee (FL), USA Protein dynamics, NMR, and force fields
Marina Rosa Brustolon	University of Padua, Padua, Italy Electron Paramagnetic Resonance and the graphite world
Bernhard Brutscher	IBS/LRMN, Grenoble, France Novel NMR tools for the study of folded and unfolded proteins
Robert G. Bryant	University of Virginia, Charlottesville (VA), USA Biological Interface Dynamics from Magnetic Relaxation Dispersion
Dmitry Budker	University of California, Berkeley (CA), USA Detection of nuclear magnetization with optical magnetometers: from remote-detection imaging to measuring J-couplings at zero field
R. Andrew Byrd	National Cancer Institute at Frederick, Frederick (MD), USA Multi-component Protein:Protein Complexes: The Impact of Long-range Restraints Derived from PRE, PCS, RDCs, Intermolecular NOE, and SAXS Data
David S. Cafiso	University of Virginia, Charlottesville (VA), USA Conformational Exchange and Dynamics in Membrane Transporters Determined by Site-Directed Spin Labeling
Iain D. Campbell	University of Oxford, Oxford, United Kingdom Intracellular activation of integrin membrane receptors
Donatella Capitani	CNR, Rome, Italy Nuclear Magnetic Resonance in Cultural Heritage

Teresa Carlomagno	European Molecular Biology Laboratory, Heidelberg, Germany Mechanisms of Intermolecular Recognition and Drug Design by INPHARMA: Theory and Applications
Andrea M. Cavalli	University of Cambridge, Cambridge, United Kingdom Protein structure determination from NMR chemical shifts
Jerry C.C. Chan	National Taiwan University, Taipei, Taiwan Solid-State NMR Study of the Formation of Steric Zipper in Amyloid Fibrils
Kandala Venkata Ramana Chary	Tata Institute of Fundamental Research, Colaba, Mumbai, India Structure, Dynamics and Ca ²⁺ -Binding Properties of Intrinsically Unfolded And Folded β -Crystallins
Bradley F. Chmelka	University of California Santa Barbara, Santa Barbara (CA), USA 29Si-29Si Scalar and Dipolar Couplings as Constraints for Determining Complicated Silicate Structures
Alessio Ciulli	University of Cambridge, Cambridge, United Kingdom Biophysical and structural approaches in fragment-based screening: probing molecular recognition for chemical biology and drug discovery
G. Marius Clore	NIDDK, Bethesda (MD), USA Hybrid structure determination methods, paramagnetic relaxation and differential relaxation
David Cowburn	New York Structural Biology Center, New York (NY), USA NMR studies of protein-protein interactions
David J. Craik	University of Queensland, Brisbane, Australia Structure-activity studies of cyclotides: ultrastable plant proteins with applications in drug design
Timothy A. Cross,	National High Magnetic Field Laboratory, Tallahassee (FL), USA Sorting Structural Reality from Among the Artifacts: The M2 Proton Channel

Nicholas Curro	University of California, Davis (CA), USA Probing Novel Electronic States in Strongly Correlated Electron Materials Using NMR and NQR
Claudio Dalvit	Istituto Italiano di Tecnologia, Genova, Italy Fluorophilic protein environments probed with ^{19}F NMR-based fragment screening
Eduardo Ribeiro de Azevedo	University of São Paulo, São Paulo, Brazil NMR approaches for studying intermediate dynamics in organic solids and their applications in the study of electroluminescent polymers
Huub J.M. De Groot	University of Leiden, Leiden, The Netherlands Self-assembling natural and artificial light-harvesters
Eleonora del Federico	Pratt Institute, Brooklyn (NY), USA Unilateral NMR as a tool to characterize deterioration processes and follow up conservation treatments in works of art
Muriel Delepierre	Institut Pasteur, Paris, FRANCE Molecular basis of viral pathogenicity
Feng Deng	The Chinese Academy of Sciences, Wuhan, PR China Spatial proximity of acid sites in microporous zeolites as studied by ^1H and ^{27}Al DQ MAS solid-state NMR spectroscopy
Herve Desvaux	CEA IRAMIS, Gif Sur Yvette, France Non-linear spin dynamics of dissolved hyperpolarized xenon
Bastiaan Driehuys	Duke University, Durham (NC), USA Recent Progress in Clinical Hyperpolarized ^{129}Xe MRI
Simon B. Duckett	University of York, York, United Kingdom Transfer of parahydrogen derived spin order sensitizes MRI and NMR measurements by three orders of magnitude
H. Jane Dyson	The Scripps Research Institute, La Jolla (CA), USA Folded-globule states of proteins detected by NMR

Mattias Eden	Stockholm University, Stockholm, Sweden New Methods for Solid-State NMR Simulations and Studies of Bio-mimetic Apatite-Formation from Mesoporous Bioactive Glasses
Arthur S. Edison	University of Florida, Gainesville (FL), USA The Merging of Metabolomics and Natural Products: Applications in Chemical Communication of Nematodes
Paola Fantazzini	University of Bologna, Bologna, Italy Advantages and Pitfalls of Magnetic Resonance for fluids in Porous Media applied to Cultural Heritage
Roberto Fattorusso	Seconda Università di Napoli, Caserta, Italy From eukaryotes to prokaryotes (or vice versa?): single classical zinc fingers as DNA binding domains
Juli Feigon	University of California, Los Angeles (CA), USA Structure and dynamics of riboswitch and telomerase RNA
Isabella C. Felli	University of Florence, Florence, Italy To be announced
Jens Frahm	Max Planck Institute for Biophysical Chemistry, Göttingen, Germany Magnetic Resonance Imaging in Real Time
Jack H. Freed	Cornell University, Ithaca (NY), USA Pulse Dipolar ESR and Protein Superstructures: Signaling Apparatus in Bacterial Chemotaxis and Varying Structures of alpha-Synuclein
Lucio Frydman	Weizmann Institute of Science, Rehovot, Israel Payback Time: Spatially Encoded NMR as a Novel MR Imaging Modality - Principles and Prospects
Istvan Furo	Royal Institute of Technology, Stockholm, Sweden Wood NMR and MRI: molecules, interactions, and motion
David Fushman	University of Maryland, College Park (MD), USA Insights into structure, dynamics, and interactions in multidomain systems

Betty J. Gaffney	Florida State University, Tallahassee (FL), USA Mapping inhibitor binding sites on a large enzyme by electron spin-spin derived distances
Serge Gambarelli	CEA INAC SCIB LRM UMR CEA UJF 3, Grenoble, France Pulsed EPR studies of decoherence in rare earth ions and magnetically coupled systems
Michael Garwood	University of Minnesota, Minneapolis (MN), USA Frequency-Swept MRI: No Sound or Echoes
Dante Gatteschi	University of Florence, Florence, Italy EMR of iron molecular nanomagnets
Gary J. Gerfen	Albert Einstein College of Medicine, Bronx (NY), USA Structure/Function of Radical Enzymes
Lila M. Gierasch	University of Massachusetts, Amherst (MA), USA Insights into Allostery: The Hsp70 Molecular Chaperone
Steffen J. Glaser	Technical University of Munich, Garching, Germany Optimal Control of Spins Systems: Robust Pulses, Coherence Transfer and Decoupling
Daniella Goldfarb	Weizmann Institute of Science, Rehovot, Israel Nanometer scale distance measurements in proteins using Gd ³⁺ spin labeling
Klaes Golman	Imagnia AB, Malmo, Sweden Hyperpolarization: Possibilities and Impossibilities
Philip J. Grandinetti	Ohio State University, Columbus (OH), USA Pathway Symmetries in Magnetic Resonance
Josef Granwehr	University of Nottingham, Nottingham, United Kingdom Comparing longitudinal and transverse detection of EPR
Astrid Gräslund	Stockholm University, Stockholm, Sweden The amyloid peptide involved in Alzheimer's disease: molecular interactions, secondary structure conversions and aggregation

Stephane Grimaldi	Aix Marseille University, Marseille 20, France Probing semiquinone binding to nitrate reductase A by pulsed EPR spectroscopy
Angela M. Gronenborn	University of Pittsburgh, Pittsburgh (PA) USA Synergy between NMR and cryo-EM-Novel Findings for HIV Capsid Function
Rolf Gruetter	University of Lausanne, Lausanne, Switzerland Ultra-high field imaging and spectroscopy at 14Tesla
Stephan Grzesiek	University of Basel, Basel, Switzerland Characterization of unfolded and folded protein states by novel NMR methods
Peter Güntert	University of Frankfurt, Frankfurt, Germany Blind-test evaluation of automated protein structure determination by NMR and new developments in CYANA
Ulrich Günther	The University of Birmingham, Birmingham, United Kingdom Cancer Metabolomics: From Diagnostics to Drug Discovery
Frank Haarmann	Rhein Westfal TH Aachen Klinikum, Aachen, Germany Shielding and quadrupole coupling parameter of intermetallic compounds: NMR experiment and quantum mechanical calculations
Graeme R. Hanson	University of Queensland, St Lucia, Australia Insights into Metal Ion Mutagenesis and Catalysis of Dinuclear Mn Metallohydrolases Utilising EPR Spectroscopy
Arend Heerschap	University of Nijmegen, Nijmegen, Netherlands In vivo multi-nuclear Magnetic Resonance
Torsten Herrmann	University of Lyon, Villeurbanne, France CASD-NMR and liquid- and solid-state NMR experiment-driven modeling of macromolecular systems with UNIO
Elaine Holmes	Imperial College of London, London, United Kingdom Statistical Spectroscopy: tools for metabolic profiling

Mei Hong	Iowa State University, Ames (IA), USA Structure and Dynamics of the Influenza M2 Proton Channel by Solid-State NMR
Peter Hore	University of Oxford, Oxford , United Kingdom Animal-detected EPR: cryptochromes as magnetic sensors
Mladen Horvatić	CNRS GHMFL, Grenoble, France High-field NMR as a powerful tool to study „exotic“ phases in quantum spin systems
Tai-Huang Huang	Academia Sinica, Taipei (Taiwan), The Republic of China Molecular Interaction between SUMO and the Death-Associated Protein-6 (Daxx)
B. Jagadeesh	Indian Institute of Chemical Technology, Hyderabad, INDIA RDC-enhanced NMR structural determination of unnatural peptidic scaffolds with periodic hydrogen bonded patterns
Michal Jaszunski	Polish Academy of Science, Warsaw, Poland NMR shielding constants and nuclear magnetic moments - ab initio methods of quantum chemistry and experiment
Gunnar Jeschke	ETH Zurich, Zurich, Switzerland Modelling of protein structures from EPR restraints- scope and caveats
Beatriz Jiménez Garrido	Centro de Investigación Príncipe Felipe, Valencia, Spain 1H NMR metabolomics for early disease diagnosis
Jukka Jokisaari	University of Oulu, Oulu, Finland NMR of atomic and small molecular probes in anisotropic liquids
Masatsune Kainosho	Tokyo Metropolitan University, Tokyo, Japan Exploring the Missing NMR Information by Selective Isotope Labeling Methods

Martin Kaupp	University of Wurzburg, Wurzburg, Germany Quantum-chemical computation of magnetic resonance parameters: from EPR of metalloenzymes to NMR of paramagnetic systems
Christopher W.M. Kay	London Centre for Nanotechnology, London, United Kingdom From Biology to Business: combining EPR with thin films to create a sensor?
Arno P.M. Kentgens	Radboud University Nijmegen, Nijmegen, Netherlands Developing NMR Tools to Study Nanoliter Solids and Liquids Samples
Dorothee Kern	Brandeis University, Waltham (MA), USA Choreographing an enzyme's dance -surprises exposed by NMR, crystallography and computation
C.L. Khetrpal	Sanjay Gandhi Post Graduate Institute of Medical Sciences Campus, Lucknow, India NMR in Neurological, Gastrointestinal and Liver Diseases, Infection and Open Heart Surgery
Klaus R. Koch	University of Stellenbosch, Stellenbosch, South Africa Isotope effects in ^{195}Pt high-resolution NMR: Unambiguous assignment method of all $[\text{PtX}_6\text{-n}(\text{H}_2\text{O})_n]^{n-2}$ ($X = 35/37\text{Cl}/ 79/81\text{Br}$, $n = 0-5$) complexes in aqueous
Walter Köckenberger	University of Nottingham, Nottingham, United Kingdom Dissolution DNP NMR spectroscopy with a dedicated spectrometer
Igor V. Koptuyug	International Tomography Center SB RAS, Novosibirsk, Russia A closer look at heterogeneous catalysis: applications of and novel hypersensitive tools for the NMR/MRI toolkit
Jozef Kowalewski	Stockholm University, Stockholm, Sweden Joint analysis of NMRD and EPR data by slow-motion theory: two medium-sized Gd(III) complexes as an example

Wiktor Kozminski	Warsaw University, Warsaw, Poland Multidimensional NMR beyond resolution limitations
Alessandro Lascialfari	S3 CNR INFM, Modena, Italy NMR and Muon Spin Relaxation in molecular nanomagnets
Robert E. Lenkinski	Harvard University, Boston (MA), USA The development of MR contrast Agents for Imaging Malignant Microcalcifications in Human Breast Cancer
Malcolm H. Levitt	University of Southampton, Southampton, United Kingdom Singlets, Triplets and Multipoles: Spin Rotational Symmetries in Solids and Liquids
Daniel Loss	University of Basel, Basel, Switzerland Spin electric effects in molecular antiferromagnets
Ricardo O. Louro	ITQB-UNL, Oeiras, Portugal Mind the gap: paramagnetic NMR studies of the trans-periplasmic bioenergetic chains linked to extracellular metallic ores
Wolfgang Lubitz	Max Planck Institute of Bioinorganic Chemistry, Mulheim an der Ruhr, Germany Intermediates in Hydrogenase Catalysis Studied by Advanced EPR Techniques
P.K. Madhu	Department of Chemical Sciences, Mumbai, India Recoupling and Sensitivity Enhancement in Half-Integer Spin Quadrupolar Nuclei
Hideaki Maeda	RIKEN Yokohama Institute, Yokohama, Japan Towards an NMR spectrometer operating beyond 1 GHz: Operation of a 500 MHz high temperature superconducting NMR
Stefano Mammi	Università di Padova, Padova, Italy Possible role of structural modifications of DJ-1 under oxidative stress in Parkinson disease
Luisa Mannina	Sapienza University of Rome, Rome, Italy NMR methodology in food analysis

Francesca M. Marassi	Burnham Institute for Medical Research, La Jolla (CA), USA NMR structural studies of bacterial virulence factor membrane proteins
Dominique Massiot	CNRS, Orleans 2, France Sorting out chemical and geometrical contributions in disordered materials
Eric J. L. McInnes	University of Manchester, Manchester, United Kingdom Probing the physics of antiferromagnetic rings by EPR spectroscopy
Thomas J. Meade	Northwestern University, Evanston (IL), USA The Coordination Chemistry of Signal Amplification and Targeting for MR Probe Development
Thomas Meersmann	University of Nottingham, Nottingham, United Kingdom Hyperpolarized Krypton-83 Magnetic Resonance
Beat H. Meier	ETH Zurich, Zürich, Switzerland Protein structures by solid-state NMR: Recent progress
Henriette Molinari	University of Verona , Verona, Italy Structural bile-ology
Gareth A. Morris	University of Manchester, Manchester, United Kingdom New DOSY and pure shift NMR tools for the chemist
José J. G. Moura	University Nova of Lisboa, Caparica, Portugal NMR and DOCKING Studies on Electron Transfer Complexes
Norbert Müller	Johannes Kepler University of Linz, Linz, Austria Nuclear Spin Noise - Fundamental Insights and Applications
Michal Neeman	Weizmann Institute of Science, Rehovot, Israel Imaging Angiogenesis: Microenvironmental control of vascular remodeling

Klaas Nicolay	Eindhoven University of Technology, Eindhoven, Netherlands The challenges and opportunities of molecular imaging with MRI
Niels Christian Nielsen	University of Aarhus, Aarhus, Denmark New twists to dipolar recoupling in biological solid-state NMR: Optimal control, multiple-field oscillation, recoupling without decoupling, and resolution enhancement
Daniel Nietlispach	University of Cambridge, Cambridge, United Kingdom Solution NMR structure determination of the seven-helical membrane protein sensory rhodopsin
Michael Nilges	Institut Pasteur, Paris, France ARIA, Bayesian structure calculation and CASD
Raymond S. Norton	Walter and Eliza Hall Institute of Medical Research, Parkville, Australia Structure and interactions of malaria surface proteins
Stanley J. Opella	University of California San Diego, La Jolla (CA) USA Development of NMR Methods for Studying Membrane Proteins
Hartmut Oschkinat	Leibniz Institute for Molecular Pharmacology, Berlin, Germany The Structure of Human β -Crystallin by Solid-State NMR and Small-Angle X-ray-Scattering, and some exciting Adventures with DNP
Gottfried Otting	Australian National University, Canberra, Australia Lanthanide tagging for protein structure determination
Arthur G. Palmer III	Columbia University, New York (NY), USA Joint Analysis of Conformational Dynamics in Ribonuclease H using NMR Spectroscopy and Molecular Dynamics Simulations
Maurizio Pellecchia	Sanford-Burnham Medical Research Institute, La Jolla (CA), US NMR based drug discovery: screening and design of novel chemical probes

Chris J. Pickard	University College London, London, UK Exploring stucture space – theory and experiment combined
Janez Plavec	National Institute of Chemistry, Ljubljana, Slovenia DNA G-quadruplex structures and cation interactions
Miquel Pons	IRB Barcelona, Barcelona, Spain Multiple Signal Integration by the Intrinsically Disordered Unique Domain of human c-Src: An NMR view
Federica Presciutti	CNR ISTM, Perugia, Italy Characterization of binders in ancient and modern paintings by NMR-MOUSE
James H. Prestegard	University of Georgia, Athens (GA), USA Long-Range and Orientational Constraints for Membrane Associated Protein Complexes
Thomas F. Prisner	University of Frankfurt, Frankfurt, Germany High field Dynamic Nuclear Polarization in Aqueous Solutions
Laura Ragona	CNR, Milano, Italy Structural and dynamic determinants of the multistep bile salt binding to lipid binding proteins
Christina Redfield	University of Oxford, Oxford, United Kingdom Control of periplasmic interdomain thiol:disulfide exchange in the transmembrane oxidoreductase DsbD
Jeffrey A. Reimer	University of California, Berkeley (CA), USA Optical Nuclear Hyperpolarization in Semiconductors
Roland Riek	ETH Zürich, Zürich, Switzerland The Relationship between the 3D Structures and Properties of Amyloids
Rahim R. Rizi	University of Penn, Philadelphia (PA), USA Assessment of Lung Function with Polarized MRI
Markus Rudin	University of Zürich, Zürich, Switzerland Adaptative changes in brain function in response to pathological and physiological challenges: fMRI studies in rodents to assess plasticity in the CNS

A. William Rutherford	CEA Saclay, Gif Sur Yvette, France EPR studies of the Quinone-Iron Complex Photosystem II
Brian K. Rutt	Stanford University, Palo Alto (CA), USA Controlled Self-Assembly of Nanoparticles: A General Template for Developing „Smart“ MRI Contrast Agents
Dimitris Sakellariou	CEA Saclay, Gif Sur Yvette, France Rotating Micro-coils for High-Resolution Spectroscopy and MRI Microscopy
Ago Samoson	National Institute of Chemical Physics and Biophysics, Tallin, Estonia Introducing new variables to MAS NMR
Olav Schiemann	University of St Andrews, St Andrews, United Kingdom PELDOR on DNA: Orientations, Dynamics, Bending, Non-Covalent Labelling and Protein Binding
Leif Schröder	Leibniz Institut für Molekulare Pharmakologie, Berlin, Germany Encapsulated Xenon as an NMR Sensor for Biomedical Applications
Harald Schwalbe	University of Frankfurt, Frankfurt, Germany RNA regulation at work
Andrew J. Sederman	University of Cambridge, Cambridge, United Kingdom Sparse and Bayesian Magnetic Resonance Techniques: Application to Transient and Flowing Systems
Philipp Selenko	Leibniz Institut für Molekulare Pharmakologie, Berlin, Germany Cells, Drugs and NMR
Antonio Sgamellotti	CNR ISTM, Perugia, Italy Portable NMR in cultural heritage: the contribution of Annalaura Segre

Mark S. Sherwin	University of California, Santa Barbara (CA), USA Free-electron laser-based pulsed EPR at 240 GHz and beyond
Yunyu Shi	University of Science and Technology of China, Hefei, Anhui, PR China A Large Intrinsically Disordered Region in SKIP and its Disorder-Order Transition Induced by PPIL1 Binding Revealed by NMR
Ichio Shimada	University of Tokyo, Tokyo, Japan Structural basis of the interaction between chemokines and their G-protein-coupled receptors
Masahiro Shirakawa	Kyoto University, Kyoto, Japan Structures, functions and stability of proteins in mammalian cells investigated by in-cell NMR spectroscopy
Vladimír Sklenář	Masaryk University, Brno, Czech Republic High-dimensionality experiments and assignment strategies for partially disordered proteins with highly repetitive sequences
Graham M. Smith	University of St Andrews, St Andrews, United Kingdom Very high sensitivity, orientation dependent, long-range distance measurements in biomolecules using PELDOR at 94 GHz
Piero Sozzani	University of Milano Bicocca, Milan, Italy Nanoporous Solids: Gas storage, Host-Guest Interactions and Dynamics
Manfred Spraul	Bruker BioSpin GmbH, Rheinstetten, Germany Integration of Nontargeted and targeted Screening by NMR - Possibilities and Applications
Dieter Suter	Technische Universität Dortmund, Dortmund, Germany Spin-qubits for quantum information processing
Masashi Takigawa	University of Tokyo, Chiba, Japan Probing novel order and dynamics in strongly correlated electron systems by NMR

Takeji Takui	Osaka City University, Osaka, Japan A Few Steps towards the Implementation of Molecular Spin Quantum Computers: Pulse-Based Electron Magnetic Resonance Spin Technology
Christina M. Thiele	Technical University of Darmstadt, Darmstadt, Germany Residual Dipolar Couplings (RDCs) as restraints in Organic Structure Determination
Nicholas J. Turro	Columbia University, New York (NY), USA Trapping and Magnetic Manipulation of the Spin Isomers of H ₂ @C ₆₀ .
Marcellus Ubbink	Leiden University, Leiden, The Netherlands Transient protein-protein interactions studied by NMR
Kamil Ugurbil	University of Minnesota, Minneapolis (MN), USA Human Imaging with ever increasing magnetic fields and strange RF behavior
Sun Un	CEA Saclay - CNRS, Gif Sur Yvette, France High Field EPR Studies of Mn(II) binding in Biological Systems
Ana Paula Valente	Federal University of Rio de Janeiro, Rio De Janeiro, Brazil Portrayal of complex dynamic properties of defensins by NMR: multiple motions associated with membrane interaction
Sabine van Doorslaer	University of Antwerp, Wilrijk, Belgium A combined EPR and DFT approach to tackle chiral catalysis
Maurice van Gastel	Institute for Physical and Theoretical Chemistry, Bonn, Germany Triplet state EPR Spectroscopy of Bioluminescent Proteins
Joris van Slageren	University of Nottingham, Nottingham, United Kingdom Frequency Domain Magnetic Resonance in Molecular Magnetism

Gabriele Varani	University of Washington, Seattle (WA), USA RNA-binding peptidomimetics repress HIV viral replication by specifically inhibiting transcriptional activation
Paul Romeo Vasos	Swiss Federal Institute for Technology in Lausanne, Lausanne, Switzerland In search of line narrowing, extended spin memory, and enhanced polarisation: through the looking glass of NMR
Gianluigi Veglia	University of Minnesota, Minneapolis (MN), USA Characterization Ground and Excited States of Membrane Proteins by Hybrid Solution and Solid-State NMR methods
Michaele Vendruscolo	University of Cambridge, Cambridge, United Kingdom Advances in the characterization of free energy landscapes of proteins by NMR spectroscopy
Alejandro J. Vila	University of Rosario, Rosario, Argentina Invisible states in paramagnetic copper proteins
Geerten W. Vuister	Radboud University Nijmegen, Nijmegen, Netherlands New Tools for NMR Structure Validation. Application to the CASD-NMR Structures
F. Ann Walker	University of Arizona, Tucson (AZ), USA Protein Structure and Dynamics of the Nitrophorins from a New World Blood-Sucking Insect
Yulan Wang	Chinese Academy of Sciences, Wuhan, PR China Metabonomics our wormy world
Warren S. Warren	Duke University, Durham (NC), USA Extending T1 and T2 relaxation times to improve contrast and sensitivity
Roderick E. Wasylshen	University of Alberta, Edmonton (AB) Canada Progress in interrogating quadrupolar nuclei via solid-state NMR spectroscopy
Antony Watts	University of Oxford, Oxford, United Kingdom Differential dynamics of bound ligands in membrane targets

Roland Wiesendanger	University of Hamburg, Hamburg, Germany Atomic-resolution spin mapping and magnetometry at the atomic level
Jörg Wrachtrup	University of Stuttgart, Stuttgart, Germany Generating complex spin quantum states from single electrons and nuclear spins
Shoujun Xu	University of Houston, Houston (TX), USA Magnetic resonance imaging and magnetic molecular imaging with atomic magnetometers

Short Oral Presentations

Jesus Angulo	Consejo Superior de Investigaciones Cientificas (CSIC), Sevilla, Spain Ligand-Receptor Binding Affinities from Saturation Transfer Difference (STD) NMR Spectroscopy: The Binding Isotherm of STD Initial Growth Rates
Burkhard Bechinger	University of Strasbourg, Strasbourg, France Solid-State NMR Spectroscopy of Oriented Membrane Polypeptides at 100 K with Signal Enhancement by Dynamic Nuclear Polarization
Patrick Berthault	CEA, Gif sur Yvette, France Toward Molecular Imaging Using ^{129}Xe NMR-based Biosensors
Bela E. Bode	Leiden University, Leiden, Netherlands Does Radical Pair Recombination Act as a Quantum Measurement?
Jerome Boisbouvier	CNRS, Grenoble, France Towards Real-Time NMR Studies of Biological Nano-Machines
Grzegorz L. Chadzynski	University Hospital Tuebingen, Tuebingen, Germany Region Specific Frequency Differences Between Water and Metabolite Resonances within the Human Brain

Nicholas Cox	Max Planck Institute, Muelheim an der Ruhr, Germany A Tyrosyl-Dimanganese Coupled Spin System in Ribonucleotide Reductase of <i>C. ammoniagenes</i> : A Multifrequency EPR and X-ray Crystallography Study
Afonso M.S. Duarte	Utrecht University, Utrecht, Germany Analysis of the ATPase Cycle of a 200 kDa Molecular Chaperone by NMR
Iola F. Duarte	University of Aveiro, Aveiro, Portugal Metabolic Signatures of Lung Cancer in Biofluids: an NMR-Metabonomics Study
Yuval Elias	Israel Institute of Technology, Haifa, Israel Heat-Bath Cooling of Spins in Amino Acids
Elke Duchardt-Ferner	Johann-Wolfgang-Goethe University, Frankfurt am Main, Germany Anatomy of a Minimalistic Riboswitch: Highly Modular Structure and Ligand Binding by Conformational Capture by the 27nt Neomycin Sensing Regulatory RNA Element
Jonathan Farjon	Leiden University, CNRS - UMR 8182 - ICMMO , Orsay, France SERF-filtered Experiments: New Enantio-selective Tools for Deciphering Complex Spectra of Racemic Mixtures Dissolved in Chiral Oriented Media
Meike Fellenberg	University of Hamburg, Hamburg, Germany Characterization of Picomole Amounts of Oligosaccharides from Glycoproteins by ¹ H NMR Spectroscopy
Raluca M. Fratila	University of Twente, Enschede, Netherlands Multinuclear Nanoliter NMR Spectroscopy in a Microfluidic Chip
David G. Gadian	University College London, London, United Kingdom Lanthanide Chelates as Relaxation Switches for Brute Force Polarisation
Sabina Haber-Pohlmeier	RWTH Aachen University, Aachen, Germany Water Flow from Soil to Roots Investigated by MRI

Judith Herzfeld	Brandeis University, Waltham (MA), USA Rapid 3D MAS NMR at Critical Sensitivity
Christian Hilty	Texas A&M University, College Station, (TX) USA Unraveling Multi-step Reactions by Real-time DNP-NMR
Ilia Kaminker	Weizmann Institute of Science, Rehovot, Israel Simultaneous Acquisition of Pulse EPR Orientation Selective Spectra
Dmitry M. Korzhnev	University of Toronto, Toronto, Canada Atomic Resolution NMR Structure of a Transient and Low Populated Protein Folding Intermediate
Kirill V. Kovtunov	International Tomography Center SB RAS, Novosibirsk, Russia Parahydrogen-Induced Polarization in Heterogeneous Hydrogenation: an Aqueous Phase, MOF and SILP Catalysts
Ilya Kuprov	University of Oxford, Oxford, United Kingdom Analytical Derivatives of Spin Dynamics Simulations
Anne Lesage	Université de Lyon, Villeurbanne, France Surface Enhanced NMR Spectroscopy by Dynamic Nuclear Polarisation
Tobias Madl	Helmholtz Zentrum and TU Munich, Garching, Germany (Solvent) PRE-assisted structural analysis of large protein complexes
Evgeny Markhasin	Massachusetts Institute of Technology, Cambridge, (MA) USA Balanced Triple Resonance Probe for Cryogenic MAS NMR and Dynamic Nuclear Polarization at 700 MHz
Tyler K. Meldrum	University of California, Berkeley (CA), USA A Xenon-based Molecular Sensor Assembled on an MS2 Viral Capsid Scaffold
George Mitrikas	NCSR Demokritos, Aghia Paraskevi, Greece Solid-State Quantum Gates based on Hybrid Electron-Nuclear Spin Systems

Fumiyuki Mitsumori	National Institute for Environmental Studies, Tsukuba, Japan Towards Understanding Transverse Relaxation Mechanisms of Tissue Water in Human Brain
Veronica Mugnaini	Institute of Materials Science of Barcelona (ICMAB-CSIC), Bellaterra, Spain Ex-situ DNP and Water Soluble Perchlorinated Trityl Radicals: A Flourishing Match
Philipp Neudecker	University of Toronto, Toronto, Canada High-Resolution Structure Determination of a Low-Populated Folding Intermediate from NMR Rela- xation Dispersion Experiments
Yusuke Nishiyama	JEOL Ltd., Tokyo, Japan 1H-14N 2D Solid-State NMR under Very Fast MAS: A Few Minutes Observation for a Sample Less Than 1 mg
Olivier Reynaud	CEA, Antony, France A Robust Protocol for Diffusion-Weighted Functional MRI on Rodents at 7 Tesla
Héctor H. Segnorile	Universidad Nacional de Córdoba - IFEG (CONICET), Córdoba, Argentina Quasi-equilibrium in liquid crystal 1H spins via eigen-selective decoherence
Devon M. Sheppard	University of Oxford, Oxford, United Kingdom Measurements of Quadrupolar Coupling Constants in Deuterium Labelled Ubiquitin
Michael C. D.Taylor	University of Southampton, Southampton, United Kingdom Relaxometry of Singlet Nuclear Spin States
Jacco van Beek	ETH Zurich, Zurich, Switzerland The Haupt Effect under Static and Magic-Angle Spinning Conditions
Veronika Vitzthum	EPFL, Lausanne, Switzerland Solid-State Nitrogen-14 Nuclear Magnetic Resonance Enhanced by Dynamic Nuclear Polarization Using a Gyrotron

Vladimir V. Zhivonitko	International Tomography Center SB RAS, Novosibirsk, Russia Microfluidic Gas-Flow Profiling Using Combined Parahydrogen-Induced Polarization and Remote Detection MRI Techniques
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Statistics

Country	N° Participants	Country	N° Participants
Argentina	4	Latavia	1
Armenia	1	Libyan Arab Jamahiriya	1
Australia	13	Mexico	1
Austria	13	Netherlands	47
Belgium	11	New Zealand	3
Belize	1	Norway	3
Brazil	36	Pakistan	1
Bulgaria	4	Poland	19
Canada	15	Portugal	19
China	5	Romania	2
Croatia	8	Russian Federation	22
Czech Republic	15	Saudi Arabia	1
Denmark	10	Singapore	1
Estonia	2	Slovakia	6
Finland	6	Slovenia	18
France	118	South Africa	4
Germany	195	Spain	35
Greece	6	Sweden	22
Hong Kong	2	Switzerland	55
Hungary	12	Taiwan	4
India	8	Turkey	5
Ireland	1	Ukraine	2
Israel	16	United Kingdom	102
Italy	173	United States	117
Japan	47		
Korea, Republic of	5	TOTAL	1219

Report on the AMPERE NMR School

Poznań/Wierzba (The Great Mazurian Lakes) 17-26 June 2010

Introduction:

The AMPERE Nuclear Magnetic Resonance School was organized by the Department of Macromolecular Physics, of Adam Mickiewicz University in Poznań, Poland, under the auspices of the GROUPEMENT AMPERE and with the financial support of the SoftComp Programme and the Faculty of Physics of Adam Mickiewicz University.

The Director of the School is Prof. Stefan Jurga, the Head of Macromolecular Physics Department.

The School was addressed to young scientists (post graduate students, PhD students and post-doctoral fellows) and was focused on theoretical and experimental aspects of NMR methods, as well as on application of NMR in nanoscience and nanotechnology.

The School covered the following topics:

- NMR relaxometry
- NMR diffusometry
- NMR spectroscopy and solid-state spectroscopy
- NMR of quadrupolar nuclei
- MRI and MRS
- Novel NMR techniques
- Applications of NMR in nanoscience and nanotechnology

Organisation:

The registration for the School was opened in February 2010 and closed in May. The participants registered through school's website (www.staff.amu.edu.pl/~school). They were regularly informed via e-mail about the most important facts regarding the event, such as the programme, fee payment, abstracts submission, accommodation and travel.

The organizers provided transport from Poznań and Warsaw to Wierzba on Sunday, 20th June, and from Wierzba to Poznań and Warsaw on Saturday, 26th June.

Scientific Committee	Organizing Committee
B. Meier (Zurich), Switzerland	Stefan Jurga - Director
J. Blicharski (Kraków), Poland	Joanna Morawska - Executive Secretary
B. Blümich (Aachen), Germany	Eugeniusz Szcześniak
E. Burnell (Vancouver), Canada	Barbara Peplińska
V. Chizhik (Saint Petersburg), Russia	Maria Dobies
C. de Lange (Amsterdam), the Netherlands	Marek Kempka
J. Dolinšek (Ljubljana), Slovenia	Monika Makrocka-Rydzik
F. Fajara (Darmstadt), Germany	Zbigniew Fojud
S. Jurga (Poznan), Poland	Mariusz Jancelewicz
A. MacKay (Vancouver), Canada	Grzegorz Nowaczyk
H. W. Spiess (Mainz) Germany	Bakyt Orozbaev
J. Stepišnik (Ljubljana), Slovenia	Kamil Szpotkowski
S. Vega (Rehovot), Israel	Wiktor Waszkowiak

Fee:

The School fee was: 450euro, including 150euro for the Basics of NMR & Tutorial in Poznań

Programme:

The programme of the School was designed for ten days and consisted of two parts: the Pre-School (the Basics of NMR & Tutorial) with practical classes and basic lectures in Poznań (17-19 June) and the School (Advanced NMR with Applications) held in Wierzba (20-26 June).

The Pre-School's lectures were attended by 34 participants. The practical classes, attended by 20 participants, comprised the following experiments:

- Fast Field Cycling Relaxometry (STELAR 8kHz – 20MHz) trained by M. Dobies, Z. Fojud, Department of Macromolecular Physics, A. Mickiewicz University, Poznań
- Relaxation (BRUKER 200 MHz) trained by B. Peplińska, Department of Macromolecular Physics, A. Mickiewicz University, Poznań
- Diffusion (BRUKER 400 MHz) trained by M. Kempka, Department of Macromolecular Physics, A. Mickiewicz University, Poznań
- High Resolution NMR (BRUKER 600 MHz) trained by Z. Gdaniec, Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznań
- NMR Imaging (BRUKER 300 MHz) trained by J. Tritt-Goc, Institute of Molecular Physics, Polish Academy of Sciences, Poznań

The second part of the AMPERE NMR SCHOOL consisted of 22 lectures, 5 oral presentations, 4 workshop and 2 poster sessions (20 posters).

The School was attended by 65 participants in total, representing various countries such as Poland, Germany, Russia, Canada, the Netherlands, Slovenia, Switzerland, France, the UK, Israel, China, USA.

Venue

Part I: The Pre-School: the Faculty of Physics, Adam Mickiewicz University "Morasko" Campus in Poznan (Poland),

Part II: The School: the Conference Centre of the Polish Academy of Sciences in Wierzba (the Great Mazurian Lakes).

Description

The School was officially opened on June 17th by Prof. S. Jurga, the Head of the Department of Macromolecular Physics and Vice-President of the Groupement AMPERE and Prof. Ryszard Naskręcki, the Dean of Faculty of Physics.

The lectures in Poznań were given from morning hours till lunch time, whereas the practical classes took place in afternoons.

In Wierzba, the lecture sessions started in the morning and ended in the early afternoon. Each lecture session was chaired by a professor. The oral presentations were given in late afternoons.

The students had the opportunity to present their results during 2 poster sessions. The posters were evaluated by the members of "the poster committee": Prof. De Lange Kees, Prof. Franz Fajarsa, Prof. Alex MacKay and Dr Christina Thiele. Two main factors were taken into account by the committee: the merit content of a poster and the way it was presented.

The committee decided to award 3 students:

Dr Michał Bielejewski, Polish Academy of Science, Poznań, first prize

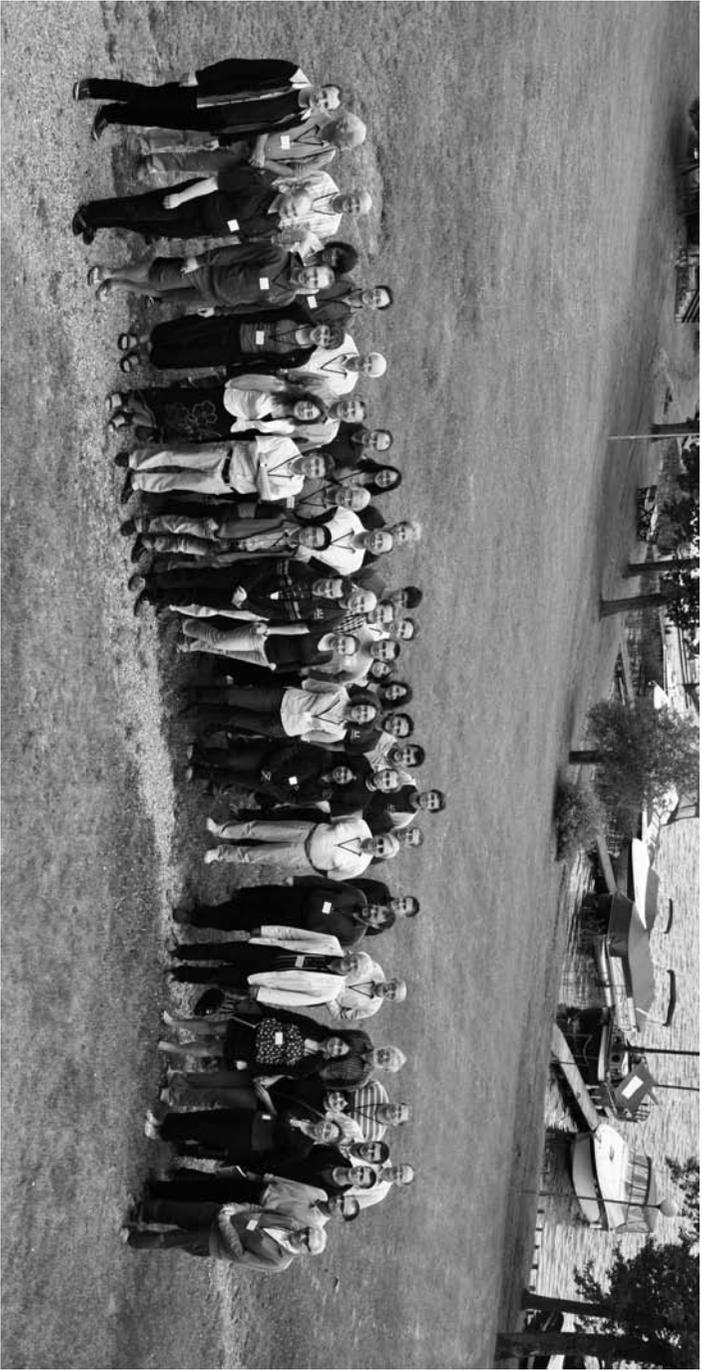
Ms Alesia Miloslvina, University of Jena, second prize

Mr Michael Ditter, TU Darmstadt, second prize

The winners were given small gifts.

The abstracts of lectures, oral presentations and posters were published as printed proceedings (**AMPERE NMR BOOK OF ABSTRACTS**) and some of the tutorial lectures and oral contributions are available on the website (under a password).

The social programme included "All together party", the Mazurian Lakes boat cruise, Popielno Museum guided tour, and Polish folklore – dancing and singing performances.



The School was a great success, which is reflected in correspondence received from the participants after the event. The next edition of the School has already been planned for 2011 (19-25 June) in Poznań and Zakopane.

Lectures: Pre School, Poznań:

- K.A. De Lange (Amsterdam, The Netherlands), Basics of NMR of molecules in uniaxial anisotropic environments
- M. Dobies (Poznań, Poland), NMR Relaxometry
- M. Makrocka-Rydyk, (Poznań, Poland), High resolution ¹³C NMR in the solid state
- K. Szutkowski, (Poznań, Poland), Molecular diffusion studied by Nuclear Magnetic Resonance
- E. Szcześniak, (Poznań, Poland), Basics of MRI
- A. MacKay, (Vancouver, Canada), Clinical magnetic resonance imaging
- Z. Fojud, (Poznań, Poland), NMR studies of model bilayer systems

Lectures: School, Wierzba

- Sh. Vega (Rehovot), Israel, An introduction to dynamic nuclear polarization
- M. Ernst (Zurich), Switzerland, Second-order recoupling sequences in mas solid-state NMR
- C. Michal (Vancouver, Canada), Two-photon NMR and NQR
- E. Roduner (Stuttgart, Germany), Magnetic resonance and magnetism of small platinum clusters in zeolites
- J. Senker (Bayreuth, Germany), Application of NMR crystallographic strategies on semicrystalline carbon nitrides
- M. Wencka (Ljubljana, Slovenia), H1 diffusion in Zr-based intermetallic compounds - NMR in the static fringe field
- J. Kowalewski (Stockholm, Sweden), Carbon-13 NMR of molecular containers in solution and in the solid state
- A. MacKay (Vancouver, Canada), NMR of stratum corneum
- C. de Lange (Amsterdam), Netherlands, Scope and limitations of accurate structure determination of solutes dissolved in liquid crystals
- Ch. Thiele (Darmstadt), Germany, Residual dipolar couplings: novel long-range NMR-parameters for organic structured determination
- Ch. Aroulanda (Paris, France), Analytical potentials of deuterium NMR in oriented media
- J. Farissard (Paris), France, Some applications of the xenon NMR technique
- D. Michel (Leipzig), Germany, Ferroelectricity in confined materials. Studies by means of NMR spectroscopy

- F. Fujara (Darmstadt), Germany, New instrumental developments and applications of fieldcycling relaxometry
- D. Kruk (Kraków), Poland, Dynamics of viscous liquids by means of NMR relaxometry and dielectric spectroscopy
- B. Blümich (Aachen, Germany), NMR Outside the NMR Laboratory
- J. Stepišnik (Ljubljana), Slovenia, Inquiry of polymer translational dynamics by gradient spin echo methods
- S. Jurga (Poznan, Poland), Polymer dynamics studied by NMR and complementary methods
- D. Lurie (Aberdeen, UK), Fast field-cycling magnetic resonance imaging
- G. Buntkovsky (Darmstadt, Germany), Solid state NMR studies of nanocatalysts
- J. Seliger (Ljubljana, Slovenia), Detection of N-14 or O-17 NQR frequencies and application of NQR in the study of material properties and structure
- S. Stapf (Ilmenau), Germany, Biopolymeric and synthetic gels monitored by ^1H , ^{23}Na and ^{27}Al imaging and relaxometry

Oral presentations (Wierzba):

- H. Kourilova (Prague, Czech Republic), NMR study of phase separation in solutions of linear polymers
- L. Skórski (Krakow, Poland), Study of oxidative processes in blood serum using relaxation measurements
- M. Baranowski (Poznan, Poland), NMR probe for off-resonance relaxation times measurements
- D. Tietze (Darmstadt, Germany), Investigations on the catalytic mechanism of nickel superoxide dismutase using liquid & solid-state NMR techniques
- W. Worthoff (Dortmund, Germany), Dynamics of optically pumped nuclear spins in GaAs Nanostructures

Executive Officers 2009 - 2011

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MRPM Representative:	S. Stapf
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Past President:	H. W. Spiess

Executive Officers and Honorary Members of the AMPERE Bureau

The AMPERE BUREAU includes the executive officers (which take the responsibility and the representation of the Groupement between the meeting of the committee), the honorary members of the Bureau and the organizers of forthcoming meetings.

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Future conferences Ampere events

2011

ICMRM 2011	Changping, Beijing, (P.R. China)	August 14-18 2011
EUROMAR 2011	Frankfurt a. M., (Germany)	August 21-25 2011

2012

EUROMAR 2012	Dublin, (Ireland)	July 1-5 2012
MRPM11	Guildford, Surrey (United Kingdom)	September 9-13 2012

Other events 2011

52nd ENC	Asilomar, CA, (USA)	April 9-15 2011
19th ISMRM Meeting	Montréal, Québec, (Canada)	May 7-13 2011
38 th Annual Conference of the Federation of Analytical Chemistry and Spectroscopy Societies	Grand Sierra Resort, NV (USA)	October 2-6 2011