

Vol. 55, No. 1

ISSN 0432-7136

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# **BULLETIN DU GROUPEMENT**

**d'informations mutuelles**

# **AMPERE**

SE CONNAITRE, S'ENTENDRE, S'ENTR'AIDER

*January - May 2006*

No. 222

*Secretariat and administration:*

ETH Zürich

Laboratory of Physical Chemistry, c/o Prof. B. H. Meier

ETH-Hönggerberg, HCI

CH-8093 Zürich, Switzerland

<http://www.ampere.ethz.ch>

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### Associate Members of the AMPERE Group:

Bruker AG, Industriestrasse 26, CH-8117 Fällanden, Switzerland

Varian Deutschland GmbH, Postfach 11 14 35, D-64229 Darmstadt, Germany

Magnetic Resonance Group, Institute Jozef Stefan, Jamova 39,  
SI-61111 Ljubljana, Slovenia

## Application form for AMPERE membership

If you are not a member of the AMPERE Group at present and would like to become a member, please fill in the form and return it to the contact address stated below.

on-line registration under:

<http://www.ampere.ethz.ch>

Family Name		
First Name		
Student	<input type="checkbox"/> yes	Reduction of 50 % of membership fees Age limit: 30 years
Title		
Institute/ Department		
University/ Organisation		
Street		
ZIP Code before		
Town, ev. State		
ZIP Code after		
Country		
Telephone		
Telefax		
e-mail		

Date:.....

Signature:.....

### Correspondence Address:

Prof. Beat H. Meier

ETH Zürich

Laboratorium für Physikalische Chemie

ETH-Hönggerberg, HCI

8093 Zürich, Switzerland

[ampere@nmr.phys.chem.ethz.ch](mailto:ampere@nmr.phys.chem.ethz.ch)

Tel.: +41 44 632 4401

Fax: +41 44 632 1621

***One year membership fee Swiss Francs 35.--, three years membership fee Swiss Francs 100.--***

# Report on the State of the Groupement AMPERE

Zürich, March 24<sup>th</sup>, 2006

The Groupement AMPERE has undergone a remarkable development in the passed years. The drive for a better *coordination* of magnetic resonance activities in *Europe* was successful. The joint meetings with the EENC at Lille, 2004 and Veldhoven, 2005, including NMRDG both attracted more than 500 participants and we look forward to the first official EUROMAR conference in York this summer. We thank Rolf Boelens and his colleagues for making the Veldhoven meeting such a success. Clearly this new European conference has a sound basis and it can be anticipated that it will soon be one of the key meetings in Magnetic Resonance world wide. Moreover, the Magnetic Resonance in Porous Media (MRPM) Community, which already has run its conferences under the auspices of the Groupement AMPERE in the past, has become a new AMPERE-Division. This further broadens our basis.

Only a year ago, I was concerned about our most important task, namely training of young scientists and newcomers to the field and wrote to the members of the Groupement AMPERE asking them to assure continuation of AMPERE Schools, which have been so successful in the past. I am highly pleased to report today that this concern is no longer justified, as we had highly successful schools last year and this year we have not less than four schools running under the auspices of the Groupement AMPERE. They cover such diverse fields as solid state NMR and brain function. Moreover, tutorial workshops given at major AMPERE-events are well attended and assure timely and flexible training. With so many schools, however, coordination between them has to be improved for the benefit of all.

When looking at the list of this year's AMPERE events on our homepage <http://www.ampere.ethz.ch>, it is obvious that the Groupement AMPERE offers a broad scope of events addressing newcomers and experienced scientists in all fields of magnetic resonance. This emphasizes that, indeed, the Groupement AMPERE establishes itself as umbrella organization coordinating the activities in Magnetic Resonance in Europe.

On the sad side, I have to report the untimely death of our colleague and friend *Arthur Schweiger*, ETH Zürich. He was a highly innovative spectroscopist with enormous impact on the development of pulse EPR and above all a wonderful person. He served on the Board of Trustees of EUROMAR and we will miss him a lot. An obituary by Gunnar Jeschke

and Stefan Stoll describing his achievements and personality was published in *Angew. Chem. Int. Ed.* **45**, 1500 (2006).

At the upcoming EUROMAR meeting in York, the Executive Officers of the Groupement AMPERE for the period 2006 – 2008 have to be elected. With two new subdivisions the new Bureau will have more members than before. Moreover, on the long run, as AMPERE grows and aims at representing Europe as a whole, one should also think of electing a third Vice President. I ask the Bureau, however, to consider that at a later occasion.

After 6 years as President it is time for me to step down. I'm glad, however, to report that Beat Meier, who as our Secretary General and Chairman of the EENC Committee was a key person to create EUROMAR is prepared to replace me. This will assure continuation and further development of our activities. Moreover, with Gunnar Jeschke, who is just being promoted to Full Professor, we identified a highly gifted scientist of the younger generation to take the post of Secretary General. We are indebted to Josef Roos, who served us as Executive Secretary for 12 years and wishes to step down. He will be replaced by Matthias Ernst. I'm confident that together with the Vice Presidents Daniella Goldfarb and Stefan Jurga, and the Representatives of the different Divisions the Bureau will be highly effective and I ask you to strongly support our proposal.

**See you all in York at EUROMAR, 16<sup>th</sup> -21<sup>st</sup> July, 2006.**

*<http://www.euromar.org>*



Hans Wolfgang Spiess

Zürich, March 24<sup>th</sup>, 2006

# Minutes of the Meeting of the AMPERE Bureau

Zürich, March 24, 2006

## Members present:

H.W. Spiess, D. Goldfarb, St. Jurga, B.H. Meier, J. Roos, P.J. McDonald, J. Dolinsek (executive officers),

R. Blinc (honorary member),

R. Boelens, P. Fantazzini, D. Farrant, (temporary members).

## Excused:

G. Béné, P. Blümmler, G. Bodenhausen, J-Y. Buzaré, St. Caldarelli, V.I. Chizhik, A. Haase, L. Kimtys, B. Maraviglia, M. Mehring, M. Pons

## Agenda:

1. Approval of the minutes of the AMPERE Bureau meeting in Zurich, April 1<sup>st</sup>, 2005
2. Report on the state of the AMPERE Society (H.W. Spiess)
3. Financial Report (B.H. Meier)
4. EUROMAR Division (J. Dolinsek)
5. Preparation for election AMPERE Bureau/AMPERE Committee in York
6. Final reports past meetings (B.H. Meier)
  - EUROMAR, EENC/AMPERE/British NMR-DG Meeting, Veldhoven (R. Boelens)
  - 4<sup>th</sup> Alpine Conference on Solid-State NMR, Chamonix (St. Caldarelli)
7. Future meetings:  
**2006**
  - EUROMAR joint EENC/AMPERE/British NMR DG Meeting, York July 17-21 (D. Farrant)
  - International School on Magnetic Resonance and Brain Function - 4th Course, Erice May 21-28 (B. Maraviglia)
  - European Schools on Solid-State NMR Brückentensee May 29-June 2 (B.H. Meier)
  - AMPERE NMR School Poznan/Wierzba June 22-July 1 (St. Jurga)
  - Nuclear Magnetic Resonance in Condensed Matter, St. Petersburg July 9-13 (V.I. Chizhik)
  - 6<sup>th</sup> Colloquium on Mobile NMR 2006, Aachen Sept. 6-8 (P. Blümmler)
  - The 8<sup>th</sup> International Bologna Conference on Magnetic Resonance in Porous Media, Bologna Sept. 10-14 (P. Fantazzini)



balanced representation of European regions (Eastern Europe, Mediterranean Europe) in the presidency and a possible shortening of the period of presidency. The final election proposal as published in this bulletin was accepted unanimously.

B.H. Meier will collect by e-mail proposals for new members of the AMPERE committee who in part should replace less active current committee members. The resulting list completed by newly proposed emeritus members of the committee will be presented for election. Further, it will be proposed to the general assembly of AMPERE that committee members should be elected for a limited period (4 years) with the possibility for a re-election.

Ad. 6 In his informal report R. Boelens recapitulated organisational tasks for EUROMAR 2005 such as active managing of sponsorship and handling financial development and reported a slightly positive financial outcome. He emphasized the success of the workshops that attracted many young people, which could be advantageously sponsored by the EU. His scientific and financial report to the corresponding EU administration has been handed in.

B.H. Meier summarized the written report on the 4<sup>th</sup> Alpine Conference on Solid-State NMR mentioning that the conference in 2007 is already in preparation.

Ad. 7 **2006**

In his detailed presentation of the EUROMAR meeting in York D. Farrant gave an overview on location, program and current financial situation, referring to part of the information already published in the last AMPERE bulletin (220/221). Besides 11 plenary and 18 invited talks his estimated numbers of oral contributions and posters are 54 and 260, respectively. The updated information on the program is available since December 2005 on the new WEB-site <http://www.euromar.org/>.

B.H. Meier summarized the main topics and current organisational situation of the international and European schools in Erice, Brückentinsee and Safed, respectively.

Concerning the AMPERE NMR School in Poznan/Wierzba, St. Jurga referred to the announcement of the school published in the last bulletin. The first tutorial part of the school will be held in Poznan and the second advanced part will take place in Wierzba. Further details are available on the WEB-site <http://www.staff.amu.edu.pl/~school/>.

B.H. Meier mentioned that the dates of the International Symposium and Summer School, NMRCM 2006, in St. Petersburg (<http://nmr.phys.spbu.ru/NMRCM-2006>) were shifted to July 9 - 13.

According to H.W. Spiess the 6<sup>th</sup> Colloquium on Mobile NMR running as a Colloque AMPERE will be a mixture of conference and workshop with tutorials at its beginning. Detailed information is available on the WEB-site <http://www.cmmr.de/>.

A comprehensive overview on the details of the 8<sup>th</sup> International Bologna Conference was given by P. Fantazzini who emphasized the importance of the

conference in stimulating contacts between industry and academics. She presented the topics covered by invited speakers and made special mention of the Giulio Cesare Borgia Prize. For further information she referred to the circular published in the last bulletin and to the WEB-site <http://www.htcongressi.com/mrpm8>.

B.H. Meier announced that the [Specialized Colloque AMPERE and AvH-Workshop: Advanced Materials as Studied by Spectroscopic and Diffraction Techniques](#) in Vilnius will run as a combination of material investigation techniques, topically covered by invited speakers from the different research fields.

### **2007**

According to most recent information on the EUROMAR meeting in Tarragona obtained from M. Pons, the dates have now been fixed definitively to July 1–5.

The 9<sup>th</sup> International Conference on Magnetic Resonance Microscopy in Aachen will have a similar structure as the previous conference.

H.W. Spiess gave notice that in addition to the traditional AMPERE NMR School in Poznan and the Alpine Conference on Solid-State NMR in Chamonix further events for 2007 are in preparation.

- Ad. 8 D. Farrant called attention to the 50<sup>th</sup> anniversary of the British Radio Frequency Spectroscopy Group this year.
- Ad. 9 Next meetings of the AMPERE Bureau:  
York, EUROMAR, Sunday, July 16, 2006,  
Zürich, Friday, March 30, 2007.

At 4:30 p.m. B.H. Meier closed the meeting and thanked all participants for their contributions.

sig. J. Roos

## Elections of the Executive Officers for the period 2006 – 2008

The AMPERE Bureau has nominated the following officers for election:

President	B.H. Meier
Vice Presidents	D. Goldfarb
	St. Jurga
Secretary General	G. Jeschke
Executive Secretary	M. Ernst
H.O.D. Representative	J-Y. Buzaré
SRMR Representative	B. Blümich
MRPM Representative	P.J. Mcdonald
EUROMAR Representative	G. Bodenhausen
EUROMAR Treasurer	J. Dolinsek

Every Committee member is entitled to present own nominations during the Committee meeting at the EUROMAR in York.

## Financial Situation of the Groupement AMPERE

Fortune of the Society per March 24, 2006

<b>Accounts in CHF</b>			
Bank Savings Account		CHF	51'158.25
Bank Current Account			5'186.60
Bank Savings Account SMRM			8'157.55
Bank Current Account EUROMAR			19'999.60
360 CS Portfolio Income Account			43'956.--
<hr/>			
Total Savings		CHF	128'458.--
Unpaid Fees 2004	26 x 35.--	CHF	910.--
Unpaid Fees 2005	59 x 35.--	CHF	2'065.--
<hr/>			
Total unpaid Fees		+	2'975.--
Prepaid Fees 2006-7	98 x 35.--	-	3'430.--
<hr/>			
<b>Effective Fortune March 30, 2006</b>		<b>CHF</b>	<b>128'003.--</b>
Effective Fortune March 30, 2005		(CHF	107'394.70)

<b>Account in US\$</b>		
<b>Effective Fortune March 24, 2006</b>	<b>US\$</b>	<b>87'098.38</b>
Effective Fortune March 30, 2005	(US\$	93'238.06)

sig. B.H. Meier

## AMPERE NMR Schools Zakopane: Thank You Jerzy and Barbara Blicharski !

The AMPERE NMR School held in Zakopane, Poland, June 5 - 10, 2005, organized by Jerzy and Barbara Blicharski marked the end of a series lasting for almost one and a half decades. As is typical for such AMPERE events, the School had a unique personal flavour which developed over several years, where it was first organized under the auspices of the Jagellonian University. External



lecturers were carefully selected by Jerzy Blicharski, most of them colleagues with whom he



had collaborated during his foreign visits. This assured high quality talks and the excursions in the beautiful Tatra Mountains offered ample opportunities for informal discussions between students and leading figures of NMR spectroscopy. This was particularly important during the time of the 'iron curtain', where the Zakopane School offered an important route for keeping contact between East and West in our field. On the personal side, Barbara Blicharska did an incredible job assuring that nobody missed anything and creating a warm personal atmosphere. Jerzy's and Barbara's room was always open for a chat over a cup of tea or help with travel arrangements, etc.

Based on this tradition, our Past President, Professor Bruno Maraviglia proposed to run the NMR School in Zakopane under the auspices of the Groupement AMPERE and since 1998 the School is known as the AMPERE NMR School



Zakopane. Its size continuously increased and eventually exceeded the capacity of the established location in Zakopane. Moreover, after retirement from the Jagellonian University in Krakow this year, support of this institution can no longer be assured. Thus, Jerzy and Barbara Blicharski decided to complete finish this series with the School in 2005. This event was particularly well attended and gave a welcome opportunity to honour Jerzy Blicharsky with a Diploma from the AMPERE group in recognition of his outstanding contributions to magnetic resonance spectroscopy and relaxation. Moreover, Robert Botto arranged a Special Issue of Solid State NMR in honour of Jerzy Blicharski, which appeared in the fall of 2005 as the first issue of volume 28.

We are glad that the tradition of having an AMPERE NMR School in Poland is maintained under the leadership of Stefan Jurga in Poznan/Wierzba, Great Mazurian Lake District, supported by the Adam Mickiewicz University, Poznan. After all, AMPERE Schools are of key importance for achieving our goals,

*'Se connaître, S'entendre, S'entraider,*  
namely, to know, to understand, and to help each other.

Barbara and Jerzy Blicharski have set high standards.

Thank you very much indeed and best wishes for the future!

A handwritten signature in cursive script, reading "Hans Wolfgang Spiess". The ink is dark and the handwriting is fluid and personal.

Hans Wolfgang Spiess

President Groupement AMPERE

## Scientific Programme EUROMAR 2006

Sunday 16 July	
From 14.00	Registration & Poster mounting
18.30	Mixer & Dinner
20.00	Welcome: Central Hall EUROMAR Medal Lecture Sir Peter Mansfield "MRI of Fluid Flow in Porous Media - Applications to the Oil Industry"
21.00	Hospitality suites and Poster mounting

Monday 17 July			
09.00	Plenary Lectures: Central Hall Pharmaceutical Applications: <a href="#">Lucio Frydman</a> <a href="#">"Principles and Progress in Ultrafast Multidimensional NMR"</a> Imaging: <a href="#">Klaes Golman</a> <a href="#">"Real-time Metabolic Imaging using Hyperpolarized 13C"</a>		
10.30	Coffee Break		
11.00	<table border="0"> <tr> <td>Session 1A: Chair: <a href="#">Duncan Farrant</a> Pharmaceut. Appl. 1: <a href="#">Tony Watts</a> "Receptor dynamics and structure in membranes resolved using solid state NMR" <a href="#">1 Andrew Mason</a> <a href="#">2 Yaroslav Khimyak</a> <a href="#">3 Christoph Deller</a></td> <td>Session 1B: Chair: <a href="#">Kevin Brindle</a> Imaging 1: <a href="#">Silvio Aime</a> "Targeting and Responsive Probes for MR Molecular Imaging Applications" <a href="#">4 Luis Pedros</a> <a href="#">5 Charles Massin</a> <a href="#">6 Bernhard Blumich</a></td> </tr> </table>	Session 1A: Chair: <a href="#">Duncan Farrant</a> Pharmaceut. Appl. 1: <a href="#">Tony Watts</a> "Receptor dynamics and structure in membranes resolved using solid state NMR" <a href="#">1 Andrew Mason</a> <a href="#">2 Yaroslav Khimyak</a> <a href="#">3 Christoph Deller</a>	Session 1B: Chair: <a href="#">Kevin Brindle</a> Imaging 1: <a href="#">Silvio Aime</a> "Targeting and Responsive Probes for MR Molecular Imaging Applications" <a href="#">4 Luis Pedros</a> <a href="#">5 Charles Massin</a> <a href="#">6 Bernhard Blumich</a>
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12.45	Lunch		
14.15	<table border="0"> <tr> <td>Session 2A: Chair: <a href="#">Malcolm Levitt</a> High Sensitivity MR 1: <a href="#">Joerg Wrachtrup</a> "Single Spin Experiments with Microwave and Optical Fields" <a href="#">7 Herve Desvaux</a> <a href="#">8 Walter Kockenberger</a> <a href="#">9 Yung-Ya Lin</a></td> <td>Session 2B: Chair: <a href="#">Kevin Brindle</a> Imaging 2: <a href="#">Alan Koretsky</a> "Functional, Molecular and Cellular MRI of the Rodent Brain" <a href="#">10 Thomas Oerther</a> <a href="#">11 Assaf Tal</a> <a href="#">12 Alexander Karabanov</a></td> </tr> </table>	Session 2A: Chair: <a href="#">Malcolm Levitt</a> High Sensitivity MR 1: <a href="#">Joerg Wrachtrup</a> "Single Spin Experiments with Microwave and Optical Fields" <a href="#">7 Herve Desvaux</a> <a href="#">8 Walter Kockenberger</a> <a href="#">9 Yung-Ya Lin</a>	Session 2B: Chair: <a href="#">Kevin Brindle</a> Imaging 2: <a href="#">Alan Koretsky</a> "Functional, Molecular and Cellular MRI of the Rodent Brain" <a href="#">10 Thomas Oerther</a> <a href="#">11 Assaf Tal</a> <a href="#">12 Alexander Karabanov</a>
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18:00	Bruker Vendor presentations: Central Hall		
19.00	Dinner		

20.30	Hospitality Suites
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<b>Tuesday 18 July</b>			
09.00	Plenary Lectures: Central Hall Methods in Solids: Lyndon Emsley "NMR Crystallography of Powders" Paramagnetic Sys: Jan Schmidt "High-Frequency EPR and ENDOR Spectroscopy on Semiconductor Nanoparticles"		
10.30	Coffee Break		
11.00	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">           Session 4A: Chair: Jeremy Titman            Methods in Solids: Stephen Wimperis            "NMR of quadrupolar nuclei in solids: new methods for studying structure and dynamics"            19 Sharon Ashbrook            20 Sasa Antonijevic            21 Steven Brown         </td> <td style="width: 50%; vertical-align: top;">           Session 4B: Chair: Daniella Goldfarb            Paramagnetic Systems 2: Thomas Prisner            "Multidimensional Hyperfine and REFINE Spectroscopy on Metalloenzymes"            22 Edward Reijerse            23 George Mitrikas            24 Victor Chechik         </td> </tr> </table>	Session 4A: Chair: Jeremy Titman Methods in Solids: Stephen Wimperis "NMR of quadrupolar nuclei in solids: new methods for studying structure and dynamics" 19 Sharon Ashbrook 20 Sasa Antonijevic 21 Steven Brown	Session 4B: Chair: Daniella Goldfarb Paramagnetic Systems 2: Thomas Prisner "Multidimensional Hyperfine and REFINE Spectroscopy on Metalloenzymes" 22 Edward Reijerse 23 George Mitrikas 24 Victor Chechik
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16.00	Tea Break		
16.30	Poster Session 1		
18:00	Varian Vendor presentations: Central Hall		
19.00	Dinner		
20:30	Prize Session: AMPERE, ER Andrew and Russell Varian prizes.		
22:00	Hospitality Suites		

<b>Wednesday 19 July</b>	
09.00	Plenary Lectures: Central Hall High Sensitivity MR: Bob Griffin Catalysis: Cornelis Elsevier "High Pressure and Transition Metal NMR Spectroscopy: Splendid Tools for Molecular Sciences"
10.30	Coffee Break

11.00	Session 6A: Chair: <b>Malcolm Levitt</b> High Sensitivity MR 2: <b>HongWen Jiang</b> “Single Electron Spin Detection in Silicon Based Semi-conductor Structures” 31 Damir Blazina 32 Joerg Matysik 33 John Clarke	Session 6B: Chair: <b>Simon Duckett</b> Catalysis 1: <b>Michael Anderson</b> “Nanoporous Catalysts : Formation and Function” 34 Rudolph Willem 35 Michael Hansen 36 Olga Lapina
12.45	Lunch	
13.30 – 21.00	Excursions	
21:00	Hospitality suites	

Thursday 20 July		
09.00	Plenary Lectures: <b>Central Hall</b> Solid State Phys: <b>Giorgios Papavassiliou</b> BioSolids: <b>Marc Baldus</b>	“Magnetic and orbital nanotextures in ferromagnetic transition-metal oxides studied with NMR”
10.30	Coffee Break	
11.00	Session 7A: Chair: <b>Janez Dolinsek</b> Solid State Physics 1: <b>Claude Berthier</b> “High-field NMR studies of field-induced phase transitions in low-dimensional systems” 37 Alexander Panich 38 Robert Blinc 39 Adriana Popa	Session 7B: Chair: <b>Beat Meier</b> Biosolids 2: <b>Kurt Zilm</b> 40 Erica Wise 41 David Middleton 42 Henrike Heise
12.45	Lunch	
14.15	Session 8A: Chair: <b>David Neuhaus</b> Bio-Macromol. 1: <b>Gerhard Wagner</b> “NMR methods for studies of large proteins and their application to problems of protein biosynthesis.” 43 Rolf Boelens 44 Gerhard Wider 45 Lars Kuhn	Session 8B: Chair: <b>Simon Duckett</b> Catalysis 2: <b>John Brown</b> “NMR in the service of asymmetric catalysis” 46 Ruth Gschwind 47 Paul Elliot 48 David Doty
16.00	Tea Break	
16.30	Poster Session 2	
17:00	Oxford Instruments Vendor presentations: Central Hall	
18:00	JEOL Vendor presentations: Central Hall	
19:00	Remove posters	
20.00	Conference Dinner – Railway Museum	

**Friday 21 July**

09.00	Session 9A: Chair: <a href="#">Geoffrey Bodenhausen</a> Frontiers: <a href="#">Yishay Manassen</a> "Noise spectroscopy of a single electron spin"  49 <a href="#">Stephan Appelt</a> 50 <a href="#">Guilhem Pages</a> 51 <a href="#">Robert Prance</a>	Session 9B: Chair: <a href="#">David Neuhaus</a> Bio-Macromolecules 2: <a href="#">Frederic Allain</a> "NMR of protein-RNA complexes: Shape and sequence-specific recognition"  52 <a href="#">Bernd Simon</a> 53 <a href="#">Janina Buck</a> 54 <a href="#">Miquel Pons</a>
10.45	Coffee Break	
11.15	Plenary Lectures: <a href="#">Central Hall</a> Frontiers: <a href="#">Dan Rugar</a> Bio-macromolecules: <a href="#">Peter Wright</a>	"Excited states and (NMR) relaxation: Linking protein dynamics to enzyme catalysis"
12.45	Close of conference	
13.00	Lunch	
14.00	Departure	



## 6<sup>th</sup> Colloquium on Mobile NMR 2006 in Aachen, Germany, 6<sup>th</sup> -8<sup>th</sup> September 2006



### *Specialized Colloque Ampere*

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The Colloquium on Mobile Magnetic Resonance (CMMR) is an annual meeting, which originates from workshops and summer schools. However, it is shaping more and more into an international conference as recognizable from being a “specialized Colloque Ampere” this year.

The objectives of the CMMR are:

- to communicate progress, developments and applications of mobile Magnetic Resonance (NMR, EPR and NQR),
- and to promote "hands-on understanding" in the form of educational lectures and practical sessions on mobile MR equipment.

For registration, submission of contributions and news see the conference webpage

<http://www.cmmr.de/>

# 8<sup>th</sup> International Bologna Conference on Magnetic Resonance in Porous Media

September 10 - 14, 2006 - Bologna, Italy

## Organization

The 8-th International Bologna Conference on Magnetic Resonance in Porous Media (Bologna MRPM8) will be held at the [University of Bologna](http://www.unibo.it), Italy, 10 – 14 September 2006. [MRPM8 follows shortly after the 6<sup>th</sup> Colloquium on Mobile NMR, 6-8 Sept. 2006, Aachen, D]

The Program will run from 14.00 on Sunday 10 September to 14.00 on Thursday 14 September.

## Submission of Abstracts

Although the deadline has passed for submission of Abstracts for contributed papers, Abstracts for Posters can still be submitted. Abstracts of all the contributions accepted for the Conference will be published in the BOOK of ABSTRACTS in the *same format* in which abstracts will be published in the Proceedings, so the Abstracts must be submitted in accordance with the instructions (see SUBMISSION OF ABSTRACTS on the website). An Abstract accepted for the Conference will be included in the Scientific Program and in the Book of Abstracts and appear in the Proceedings only if the presenting author is registered and fee paid by **20 August, 2006**.

**For information and on line registration, including payment: Go to web site**

<http://www.mrpm.org>

**Scientific Secretariat: Prof. Paola Fantazzini, [fantazzini@mrpm.org](mailto:fantazzini@mrpm.org)**

## Invited Speakers

**Ioan Ardelean** Physics Department, Technical U. from Cluj-Napoca (RO) *Time dependence of the effective diffusion coefficient of fluids in partially filled mesoscopic pores from hundred microseconds to hundred milliseconds*

**Bernhard Blümich** Institute of Technical and Macromolecular Chemistry, RWTH Aachen U. (D) *Nondestructive testing by NMR: from polymer pipes to mummies*

- Peter Blümler** ICG-III: Phytosphere, Rsearch Centre Jülich (D) *New magnets for mobile NMR and EPR*
- Paul T. Callaghan** MacDiarmid Institute for Advanced Materials and Nanotechnology, Victoria U. of Wellington (NZ) *Multi-dimensional approaches to Pulsed Gradient Spin Echo and Relaxation NMR in Porous Media*
- Cinzia Casieri** Dipartimento di Fisica, U. L'Aquila (I) *Nuclear Magnetic Resonance for Cultural Heritage*
- Denise Freed** Schlumberger-Doll Research, Ridgefield (USA) *Self-assembly of Asphaltenes: Enthalpy, entropy of depletion and dynamics at the Crossover*
- Eiichi Fukushima** ABQMR (USA) *Random walk around porous media magnetic resonance – A personal view*
- Josef Granwehr** School of Physics and Astronomy, U of Nottingham, (UK) *Time-of-flight remote detection MRI as a tool to study porous materials*
- Jukka Jokisaari** Department of Physical Sciences, U. of Oulu (FI) *Xenon porometry. A novel method for the derivation of pore size distribution*
- Jean-Pierre Korb** Ecole Polytechnique, Palaiseau (F) *Microstructure and texture of cementitious porous materials*
- John Mamin** IBM Research Division - Almaden Research center (USA) *Magnetic Resonance force microscopy – the quest for a molecular structure microscope*
- Carlos Mattea** Sektion Kernresonanzspektroskopie, U. of Ulm (D) *Hydrodynamic dispersion at interfaces in porous media investigated by field-cycling NMR relaxometry*
- Peter McDonald** Department of Physics, U. of Surrey (UK) *2D Correlation relaxation studies of cement pastes*
- Alex Pines** U. of California, Berkeley, and Lawrence Berkeley National Laboratory (USA) *Novel Polarization and Detection of NMR and MRI for Porous Materials*
- Yi-Qiao Song** Schlumberger-Doll Research, Ridgefield (USA) *Recent progress in magnetic resonance techniques for porous media research*

Specialized Colloque AMPERE and AvH-Workshop:

## **Advanced Materials as Studied by Spectroscopic and Diffraction Techniques**

**Vilnius, Lithuania - September 16 - 21, 2006**

The *Specialized Colloque AMPERE and AvH-Workshop* will be organized by Vilnius University (Lithuania) in collaboration with the Darmstadt University of Technology and the Leipzig University (Germany) as a part of joint research projects sponsored by Alexander von Humboldt Foundation.

### **Organizing and Programm Committee**

Prof. Juras Banys (Dean of Faculty of Physics, Vilnius University) – Chairman

Prof. Hartmut Fuess– Co-chairman

Prof. Dieter Michel – Co-chairman

Prof. Vytautas Balevicius – Secretary

Prof. Liudvikas Kimtys

Dr. Feliksas Kuliesius

Dr. Valdas Sablinskas

Ruta Bariseviciutė

Justinas Ceponkus

### **Topics of the conference:**

- **Structure and phase transitions**
- **Intermolecular and molecular-ionic interactions in aqueous and ionic solutions**
- **Nanostructures and porous media**
- **Biological systems**
- **Advanced materials**
- **Dielectric, NMR, ESR, vibrational and optical spectroscopy**
- **Light, X-ray and neutron scatterings**
- **Modern theoretical calculations (quantum chemistry, molecular dynamics, etc)**

### **Keynote Speakers:**

- M. Anisimov (University of Maryland, USA)
- R. Blinc (J. Stefan Institute, Ljubljana, Slovenia)
- S. Jurga (Poznan University)
- B. Nelander (Lund University)
- M.S. Johnson (Copenhagen University)
- H.H. Limbach (Berlin Free University)

- R. J. D. Miller (Toronto University, Canada)
- M. Suhm (Göttingen University, Germany)
- K.-P. Dinse (Darmstadt Technical University)
- H. Ehrenberg (Darmstadt Technical University)
- R.-A. Eichel (Darmstadt Technical University)
- H. Fuess (Darmstadt Technical University)
- R. Böttcher (Leipzig University)
- D. Michel (Leipzig University)
- A. Pöppel (Leipzig University)
- G. Völkel (Leipzig University)
- V. Balevicius (Vilnius University)
- J. Banys (Vilnius University)
- L. Valkunas (Vilnius University)
- V. Sablinskas (Vilnius University)
- V. Gulbinas (Lithuanian Institute of Physics)
- and etc.

### Venue and date

The *Colloque* will take place at Vilnius University, Faculty of Physics, Sauletekio av. 9-3. It will start on Saturday, September 16, 2006 (registration, accommodation, welcome reception) and close on Thursday, September 21, 2006, around noon.

### SUBMISSION OF THE CONTRIBUTED PAPERS

#### Abstracts

Abstract (one page) should be written in English in the format MS Word format. All abstracts should be submitted electronically **before August 31, 2006**, by e-mail as an attached document (file having an extension "doc"). The text of abstract should be written in **Times New Roman** font (see under website <http://www.ff.vu.lt/ampere/>).

The receiving and acceptance of the abstracts will be **confirmed** by the Organisers immediately (inform, please, your e-mail address, if it was not indicated in the Reply Card of the First Circular). A book containing abstracts of all papers will be distributed to all participants upon registration.

#### Proceedings

The contributed papers will be published as a special issue of the journals: *Applied Magnetic Resonance*, *Phase Transitions* or *Lithuanian Journal of Physics*. Authors wishing to submit a paper should bring their manuscript with them to the Colloque and hand it to the Editorial representative. Opportunity will be afforded to authors to amend their papers, if necessary, in the light of discussion at the Colloque. All papers will be examined by referees and are expected to comply with the standards expected for a paper published

by the *Journals* in a regular issue. Papers will be typeset, and manuscripts should be prepared according to the instructions given in the *Journals*. One could find the necessary "Instructions to Authors".

## FINAL REGISTRATION

Participants are kindly requested to register for the Colloque **before August 31, 2006** using the Registration Form

(see under website <http://www.ff.vu.lt/ampere/>) and transfer the registration fee:

Regular participant	EUR 260
Student	No
Partners of the AhV projects	No
Accompanying person	EUR 40

Notice that there will be a **surcharge of EUR 20** for registration after August 31, 2006 and for on-site registration.

Students need letter of confirmation from their institution.

The **Colloque fee** entitles participants to attend the Colloque sessions and to receive the Book of Abstracts as well as the booklet *Vilnius in Your Pocket*. It also includes morning and afternoon refreshments during the Colloque, welcome reception, excursion in the University, guided sightseeing in the old part of Vilnius, excursion in the Historical Capital of Lithuania Trakai or in the second biggest town Kaunas, concert.

## INFORMATION via INTERNET

The regularly updated WWW page of the Colloque opens the links to the home pages of Lithuania, Vilnius University and etc.: [www.ff.vu.lt/ampere/](http://www.ff.vu.lt/ampere/)

## GENERAL ADDRESS:

**Prof. Vytautas Balevicius**

Colloque Secretary

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Final Report

## **4<sup>th</sup> Alpine Conference on Solid-State NMR**

Chamonix, September 11 - 15, 2005

The 4<sup>th</sup> Alpine Conference on Solid State NMR was held in Chamonix Mont-Blanc (F), from Sunday 11<sup>th</sup> to Thursday 15<sup>th</sup> September 2005, under the auspices of the Groupement Ampère and of the ISMAR society.

The bulk of the attendance came from Europe ( 47 F, 43 D, 28 UK, 13 CH, I 9, S 6 , E 4, NL 4, B 1) and neighboring countries (Israel 5, Slovenia 2, Poland 2, Russia 3 , Estonia 3, Hungary 1), but with a considerable participation from North America (USA 54, CND 3) and from even further away (JPN 1, NZL 2, India 3, Taiwan 1, Kor 1).

This edition was preceded by a one-day symposium to honor Alex Pines' 60<sup>th</sup> birthday, which was a complete event on its own. The list of participants included Alex's former coworkers and present friends, an extremely stimulating gathering of two generations of NMR (but not exclusively) practitioners, the list of which is found below.

The Alex Pines' symposium was kindly sponsored by:

Schlumberger, Doty Scientific, Spectra Stable Isotopes, ChevronTexaco, Elsevier, Varian, UC Berkeley

The Scientific Committee of this edition (M.H. Levitt, S. Opella and D. Suter) did an excellent job in putting together a very diverse and stimulating program, with a special attention to young scientists and emerging topics.

David Klug of the Imperial College delivered this year the special external lecture, a dedicated space in which a distinguished scientist from a neighboring field is invited to explain the strength and the challenges of their domain of specialty, in the hope of inducing some cross-contamination between the fields. This year, the topic was concerning biophysics and photosystems, which triggered some debate for its proximity to NMR concerns.

We gratefully acknowledge further financial help from:

Bruker SA, Varian SA, Doty Scientific, Spectra Stable Isotopes, Région Rhône-Alpes, NMR Service, Elsevier, Société Française de Chimie, Wiley

Finally , it is becoming a routine to acknowledge the always perfect assistance of the Bureau des Congrès & Séminaires of the Office du Tourisme of Chamonix (special thanks, as usual, to Evelyne Roudier for efficiency, availability and kindness) and of the technical staff of the Majestic conference center.

The conference center is already booked for the 5<sup>th</sup> edition of the Alpine conference in 2007, from Sept. 9<sup>th</sup> to 13<sup>th</sup>. Check our web site for announcements

<http://www.alpine-conference.org>

For the local organizers

Stefano Caldarelli

### Pines Symposium, Sunday 11<sup>th</sup> September

8:00-9:45am Conference  
Registration

J.S. Waugh, chair

10:00am introduction

10:10 M.V. Berry

10:35 K. Zilm

10:50 W. Warren

11:05 Y.-Q. Song

11:25 P. Grandinetti

11:40 C. Jameson

12:05 lunch

R. Freeman, chair

1:45pm P.T. Callaghan

2:10 D. Wemmer

2:25 D. Raftery

2:40 S.-I. Han

2:55 R. Tycko

3:10 break

R.G. Griffin, chair

3:25 M. Mehring

3:50 D.P. Weitekamp

4:05 S. Caldarelli

4:20 C. Schmidt

4:35 B.F. Chmelka

4:50 coffee break

E.L. Hahn, chair

5:30 L. Frydman

5:45 Y. Wu

6:00 G. Drobny

6:15 K. Wüthrich

6:40 Aperitif offered by the  
town of Chamonix Mont-Blanc

8:00 Dinner

## PROGRAM OVERVIEW

Monday	Tuesday	Wednesday	Thursday
Session I (M. Mehring)	Session III (M. Duer)	Session V (W.S. Warren)	Session VII (M.H. Levitt)
8:30 am L. Emsley	8:30 am J. Chan	8:30 am S.P. Brown	8:30 am B.H. Meier
9:10 F. Taulelle	9:00 G. De Paëpe	9:10 H. Heise	9:10 M. Carravetta
9:35 M. Ernst	9:30 C. Deller	9:35 F. Marassi	9:35 J. Schmedt A.D. Günne
10:00 <i>Coffee Break</i>	10:00 <i>Coffee Break</i>	10:00 <i>Coffee Break</i>	10:00 <i>Coffee Break</i>
10:30 S. Kiihne	10:30 S. Dvinskikh	10:30 H.-H. Klauss	10:30 R. Simonutti
10:55 P. Hodgkinson	11:00 H.G. Krojanski	10:55 A. Böckmann	10:55 K.-N. Hu
11:20 D. Massiot	11:30 S. Faske	11:20 S. Hayes	11:20 P.D. Ellis

12:00 <i>Lunch - Posters</i>	12:00 Poster Contact (odd)	12:00 Poster Contact (even)	12:00 <i>Closing Remarks</i>
	12:30 <i>Lunch - Posters</i>	12:30 <i>Lunch - Posters</i>	

Session II (D. Suter)
2:30 pm D. Rugar
3:10 F. Jelezko
3:50 <i>Coffee Break</i>

Free Afternoon

Session VI (S.J. Opella)
2:30 pm D. Weliky
3:10 C. Fernandez
3:35 S. Wimperis
4:00 <i>Coffee Break</i>

4:30 Poster Session I (Even)
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Session IV (E. Lippmaa)
6:00pm A. Pines
6:40pm D. Klug

4:30 Poster Session II (Odd)
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6:00 Free

6:00 Free

7:30 *Dinner (La Caleche)*

7:40 *Aperitif*

8:15 *Dinner (Le Majestic)*

7:00 *Banquet (Montenvers)*

## Future Conferences

### AMPERE Events

#### 2006

Int'l. Symposium & Summer School "NMR in Condensed Matter" 3 <sup>rd</sup> Meeting, "NMR in Heterogeneous Systems"	Saint Petersburg (Russia)	<b>July 9-13, 2006</b>
EUROMAR joint EENC/AMPERE/British NMR-DG meeting	York (U.K.)	<b>July 17-21, 2006</b>
6 <sup>th</sup> Colloquium on Mobile NMR 2006 "Specialized Colloque AMPERE"	Aachen (Germany)	<b>September 6-8, 2006</b>
The 8th International Bologna Conference on Magnetic Resonance in Porous Media	Bologna (Italy)	<b>September 10-14, 2006</b>
European School on Solid-State NMR - 3rd Basic Level Course	Safed, Galilee (Israel)	<b>September 10-15, 2006</b>
Specialized Colloque AMPERE and AvH-Workshop: Advanced Materials as Studied by Spectroscopic and Diffraction Techniques	Vilnius, (Lithuania)	<b>September 16-21, 2006</b>

#### 2007

EUROMAR joint EENC/AMPERE/British NMR-DG meeting	Tarragona, (Spain)	<b>July 1-5, 2007</b>
9th International Conference on Magnetic Resonance Microscopy	Aachen, (Germany)	<b>September 3-7, 2007</b>

## Other Events

2006

NANUC 2006 Canadian National Training Course Non-linear NMR Data Acquisition	London, Ontario, (Canada)	July 13-14, 2006
48th Annual Rocky Mountain Conference on Analytical Chemistry	Breckenridge, Colorado (USA)	July 23-27, 2006
6 <sup>th</sup> CCPN Meeting Efficient and Rapid Structure Determination by NMR, St.Martins College	Ambleside, Cumbria, (U.K.)	July 28-30, 2006
22 <sup>nd</sup> ICMRBS	Göttingen, (Germany)	August 20-25 2006
SMASH 2006	Burlington, Vermont (USA)	Sept. 10-13, 2006
8 <sup>th</sup> Int'l. Workshop on Magnetic Resonance	Rostov-on-Don, (Russia)	Sept. 10-17, 2006
36 <sup>th</sup> National Congress on Magnetic Resonance Vietri a Mare	Salerno, (Italy)	Sept. 20-23, 2006
23 <sup>rd</sup> Meetg. European Soc. for MR in Medicine & Biology	Warsaw, (Poland)	Sept. 21-23, 2006
Gordon Research Conference Computational Aspects of Biomolecular NMR	Centre Paul Langevin, Aussois (France)	Sept. 24-29, 2006
28 <sup>th</sup> Annual GDCh NMR Discussion Meeting "Principles & Novel Applications of Modern MR Methods" Together with the NMR Discussion Groups of Portugal and Spain	Tübingen, (Germany)	Sept. 26-28, 2006
MRS Symposium "Magnetic Resonance in Material Science"	Boston, MA, (USA)	Nov. 27-Dec. 1, 2006

## 2007

15 <sup>th</sup> ISMRM Meeting	Barcelona, (Spain)	May 12-18, 2007
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## 2008

16 <sup>th</sup> ISMRM Meeting	Toronto, Ontario, (Canada)	May 3-9, 2008
23 <sup>rd</sup> ICMRBS	San Diego, California (USA)	August 24 - 29, 2008

## 2009

17 <sup>th</sup> ISMRM Meeting	Honolulu, Hawai'i, (USA)	April 18-24, 2009
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