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Associate Members of the AMPERE Group:

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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

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<th>Family Name</th>
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Date:…………………………………… Signature:……………………

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

Dear AMPERE colleagues,

at the YORK EUROMAR meeting, the AMPERE president, Hans-Wolfgang Spiess has stepped down after 6 years as the President of the groupement AMPERE. I took over his function and Gunnar Jeschke, Professor of Physical Chemistry in Konstanz, Germany and EPR specialist, has replaced me as the Secretary General of the Groupement. Matthias Ernst (Physical Chemistry, ETH Zurich) will be the new executive secretary.

I would like to thank Hans-Wolfgang Spiess for his enthusiasm and for the hard work he did for the groupement AMPERE. Under his guidance, a number of important changes and reforms have taken place in AMPERE. The unification of three European Magnetic Resonance Conferences (EENC, NMRDG, Congress AMPERE) into the new joint EUROMAR conference is probably the most visible result of his work. EUROMAR has been established as a subdivision of AMPERE and will keep in close contact with the Groupement AMPERE to ensure a coordinated effort to provide a broad portfolio of conferences including schools (entry level and advanced), smaller meetings on specialized topics and the EUROMAR congress.

In my view, the most important aims of the Groupement AMPERE for the years to come are:

- being the umbrella organization for the organization of European schools, specialized conferences, workshops and the EUROMAR.
- hosting subdivisions with special interests like Spatially Resolved Magnetic Resonance, Magnetic Resonance in Porous Media, Hertzian Optics, EPR and EUROMAR.
- being a professional organization promoting the interests of magnetic resonance in Europe.

With these activities we can hopefully further contribute to the progress of rf Spectroscopy, Magnetic Resonance and Related Phenomena.

All these activities are accurately summarized in the french “SE CONNAITRE, S'ENTENDRE, S'ENTRAIDER” you find on the front page of the AMPERE bulletin.

If the new president has a wish open, mine is: many, many active members.

Beat Meier
Report on the State of the Groupement AMPERE
York, July 16th, 2006

General Development

This is my last report as President of the Groupement AMPERE. Therefore, it might be justified to look back for a moment and summarize the developments during the last 6 years. When Beat Meier and I took responsibility for our Society in fall 2000 we identified two urgent challenges for the future:

- encourage young scientists to play a more active role in our group,
- co-ordinate our activities with other groups of magnetic resonance in Europe and world-wide.

I’m glad to report that the Groupement AMPERE was remarkably successful in both cases: In fact only a year or so 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. As a specific example let me mention that the AMPERE NMR School in Poland under the new leadership of our Vice President Stefan Jurga made a smooth transition from Zakopane to Poznan/Wierzba and changed its format by including an extended tutorial for three days.

The drive for a better coordination of magnetic resonance activities in Europe was also remarkably successful. The joint meetings with the EENC at Lille, 2004 and Veldhoven, 2005, including NMRDG both attracted more than 500 participants and now we have the first official EUROMAR conference in York. I would like to thank our English colleagues, in particular Duncan Farrant and Simon Ducket, for making this event possible and the special efforts to make it affordable for students. The Board of Trustees of EUROMAR, chaired by Geoffrey Bodenhausen is established and this new European conference clearly has a sound basis. The next meeting is scheduled to take place in Tarragona (Spain) in July 2007 and it can be anticipated that EUROMAR as a subdivision of the Groupement AMPERE will soon be one of the key meetings in Magnetic Resonance world wide.

Moreover, last year the Magnetic Resonance in Porous Media (MRPM) Community, which already organized its conferences under the auspices of the Groupement AMPERE in the past, has become a new AMPERE-Division. This Division further strengthens the role
of Physics in our Society and broadens our basis, as it covers a broad range of techniques: NMR, EPR and MR imaging. Its next meeting is scheduled in Bologna this fall.

Other remarkable things happened during our term in Office:

- Above all two Nobel-Prizes were awarded to pioneers of our field, Kurt Wüthrich in 2002, Paul Lauterbur and Sir Peter Mansfield in 2003. Two of the Laureates are from Europe and all three have given numerous lectures at AMPERE-Events.
- We received a generous donation from Mrs. Eunice Andrew, to support the Raymond Andrew Prize for outstanding Ph.D. theses once per year.

**AMPERE Events**

The Groupement AMPERE continues to offer a broad scope of events addressing newcomers and experienced scientists in the diverse fields of magnetic resonance alike. This is obvious when looking at the list of past and future AMPERE events on our homepage [http://www.ampere.ethz.ch](http://www.ampere.ethz.ch). Thus I refrain from listing all events of the last years, but want to express my wholehearted thanks to those, who made these events possible, in particular the Chairpersons.

**Conclusion and Further Development**

I strongly feel that the Groupement AMPERE will benefit substantially from the developments outlined above. The combined efforts of the magnetic resonance community in Europe will continue to be successful, if we are open to changes, but flexibility has always been characteristic of the Groupement AMPERE. In fact, I’m convinced that failure to have played an active role in the drive for EUROMAR would have severely endangered our Society. Important activities of Magnetic Resonance in Europe would then happen outside the Groupement AMPERE. Along these lines I hope that the EPR community in Europe will further increase its activity in our Society.

Magnetic Resonance is as appealing as ever. It covers an impressively wide range of techniques, such as liquid state NMR, solid state NMR, EPR, imaging on the one hand, and a broad scope of fields to which Magnetic Resonance contributes: Physics, Chemistry, Biology, Materials, and Medicine on the other. The wide scope, however, asks for coordination both in science and in organization. Here the Groupement AMPERE has a long standing successful tradition on which we can count. In fact, I don’t know of another organization with such a broad scope in Magnetic Resonance anywhere else. Thus, at the end of my term as President I feel that our Society is well prepared to further develop its activities on the three levels:

- Training of young scientists entering the field,
- Specialized conferences on well defined topics including those of subdivisions,
• Hosting EUROMAR, the major European Magnetic Resonance Conference.

Obviously, scope and activity of the Groupement AMPERE six years ago and today differ significantly. I’m indebted to all of you for making these developments possible, in particular, the Secretary General, the Vice Presidents, the members of the Bureau and the Committee, and last, but not least the AMPERE members. Now, it is time for me to step down as President. I’m glad, however, 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.

It has been a privilege serving as President during this transition period. Let me take this opportunity to thank you all and ask for your active support of the new Executive Officers in the future.

Hans Wolfgang Spiess

York, July 16th, 2006
Minutes of the Meeting of the AMPERE Bureau

in York, July 16, 2006

Present: H.W. Spiess (D), B.H. Meier (CH), D. Goldfarb (IL), D. Farrant (UK), G. Bodenhausen (CH)

Agenda

1. Approval of the minutes of the AMPERE Bureau meeting in Zurich, March 24, 2006
2. Report on the state of the AMPERE Society (H.W. Spiess)
4. EUROMAR Division (J. Dolinsek)
5. Members AMPERE Committee (B.H. Meier)
6. Report on the EUROMAR (D. Farrant)
7. Future meetings: (only new information)

2006

- 6th Colloquium on Mobile NMR 2006, Aachen Sept. 6-8 (P. Blümmer)
- The 8th International Bologna Conference on Magnetic Resonance in Porous Media, Bologna Sept. 10-14 (P. Fantazzini)
- European School on Solid-State NMR, Safed Sept. 10-15 (St. Caldarelli)
- Specialized Colloque AMPERE and AvH-Workshop Sept. 16-21 Vilnius, Lithuania (L. Kimtys)

2007

- EUROMAR joint EENC/AMPERE/British NMR DG Meeting, Tarragona July 1-5 (M. Pons)
- Int. Symposium and Summer School, St. Petersburg July 9-13 (V. Chizhik, R. Sagdeev)
- 9th International Conference on Magnetic Resonance Microscopy, Aachen Sept. 3-7 (P. Blümmer)
- 5th Alpine Conference on Solid-State NMR Sept. 9-13 (St. Caldarelli)
- AMPERE NMR School, Poznan ? (St. Jurga)

8. Final reports past meetings

- International School on Magnetic Resonance and Brain Function - 4th Course, Erice (B. Maraviglia)
- European Schools on Solid-State NMR, Brückentinsee (B.H. Meier)
- AMPERE NMR School, Poznan/Wierzba, (St. Jurga)
- Int. Symposium and Summer School, St. Petersburg (V. Chizhik)
9. Varia

At 4.30 p.m. H.W. Spiess welcomed all present members of the Bureau and opened the meeting. The agenda was approved unanimously.

Ad. 1 The minutes of the AMPERE Bureau meeting in Zurich, March 24, 2006 published in the AMPERE Bulletin No. 214, were approved unanimously.

Ad. 2 In his report, he focused on the co-ordination of European NMR activities and the successful efforts to create the EUROMAR meeting.

Ad. 3 The financial report (see appendix to the minutes) was accepted unanimously.

Ad. 4 -

Ad. 5 The bureau discussed new members for the committee to be proposed to the AMPERE committee (for a list see the minutes of the AMPERE committee). Prof. Jan Schmidt (NL) and Prof. Attilo Rigamonti (IT) have stepped down, after many years of activity, from the committee. The bureau thanks them for their efforts for AMPERE.

Ad 6 Duncan Farrant reported on the status of the EUROMAR meeting and on the registrations. Detailed numbers will be listed in his final report. The congress is running smoothly.

Ad 7 Except for the Safed School, where the political situation makes it probably impossible to have the school, all other meetings were well under way and the status was approved by the bureau

Ad 8 All final reports were approved.

At 5.30 p.m. H.W. Spiess closed the meeting and thanked all participants.

sig. B.H. Meier
Minutes of the Meeting of the AMPERE Committee
in York, United Kingdom, July 17, 2006

Members present:

H. W. Spiess (D), R. Blinc (SLO), D. Goldfarb (IL), St. Jurga (PL), B. H. Meier (CH), (executive officers)
V. Atsarkin (RUS), G. Bodenhausen (CH), V. Chizhik (RUS), J. Dolinsek (SLO), L. Emsley (FR),
L. Frydman (IL), Ch. Griesinger (D), W. Lubitz (D), T. Nunes (P), J. Schmidt (NL) (ordinary members)
S. H. Choh (KOR) (honorary member)
T. M. Duncan (UK), G. Jeschke (D) (guests)

Agenda:

1. Approval of the minutes of the AMPERE Committee meeting in Lille, September 7, 2004
2. Report of the president on the state of the Groupement AMPERE (H.W. Spiess)
3. Reports of the secretary general and other executive officers
4. Elections of executive officers and honorary members of the Bureau
5. Election of new AMPERE Committee and Honorary members
6. Joint European Conference on Magnetic Resonance, EUROMAR
7. Committee activities in between AMPERE congresses
8. Varia

At noon, H. W. Spiess opened the meeting and welcomed guest members and all present regular members of the committee. The agenda of the meeting was accepted unanimously.

Ad. 1 The minutes of the meeting in Lille, September 6, published in the AMPERE Bulletin 215, were approved unanimously.

Ad. 2 The president reported on the collaboration with the EENC consortium on the organization of a yearly European magnetic resonance conference, the EUROMAR and on the organisation of four training schools in 2006 under the auspices of the AMPERE society. He suggested that the EPR community of Europe might want to join AMPERE as a subdivision.
Ad. 3 The secretary general presented an overview over the finances. They were approved unanimously. He also presented a list of forthcoming conferences. V. Chizhik pointed out another forthcoming training school in St. Petersburg (RUS). The secretary general informed that training schools are endorsed, but do not receive money from AMPERE society.

Ad. 4 For a period of 2006-2008, the following members of the bureau were elected:

President: Beat H. Meier
Vice Presidents: Daniela Goldfarb
              Stefan Jurga
Secretary General: Gunar Jeschke
Executive Secretary: Matthias Ernst
Past President: Hans-Wolfgang Spiess
H.O.D. Representative: Jan-Yves Buzaré
SRMR Representative: Bernhard Blümich (Aachen)
MRPM Representative: Peter McDonald
EUROMAR Representative: Geoffrey Bodenhausen
EUROMAR Treasurer: Jani Dolinsek

Honorary Members: Robert Blinc
                 George Bené
                 Bruno Maraviglia

Ad. 5 A list of new committee members and honorary members was discussed and approved for presentation as an election proposal to the general assembly.

Ad. 6 T. M. Duncan informed about the current state of affairs of the ongoing EUROMAR meeting in York 2007.

Ad. 7 H. W. Spiess proposed that no activities of the committee are required in between the EUROMAR conferences. This proposal was accepted unanimously.

At 1:30 p.m. H. W. Spiess closed the meeting and thanked all participants.

sig. G. Jeschke
Minutes of the General Assembly of the Groupement AMPERE
York, July 18, 2006

Agenda:

1. Approval of the minutes of the General Assembly of the Groupement AMPERE in Lille, France, September 9, 2004
2. Report of the president on the state of the Groupement AMPERE (H.W. Spiess)
3. EUROMAR meetings (G. Bodenhausen)
4. Elections of Bureau, Committee and Honorary members
5. Varia

Ad 1 The minutes published in the AMPERE Bulletin 215, were approved unanimously

Ad 2 The report of the AMPERE president was presented by the secretary general. Prof. Spiess had to leave already. At the end of his term, Hans Spiess sees the following challenges and focal points for the future (i) Training of young scientists entering the field, (ii) Specialized conferences on well defined topics including those of subdivisions (iii) Hosting EUROMAR, the major European Magnetic Resonance Conference.

Ad 3 Geoffrey Bodenhausen, president of the EUROMAR, informed about the organizational aspect of the EUROMAR meetings which are now a subdivision of the Groupement AMPERE.

Ad 4 The elections of the AMPERE committee for the bureau-members

President: Beat H. Meier
Vice Presidents: Daniela Goldfarb
              Stefan Jurga
Secretary General: Gunar Jeschke
Executive Secretary: Matthias Ernst
Past President: Hans-Wolfgang Spiess
H.O.D. Representative: Jan-Yves Buzaré
SRMR Representative: Bernhard Blümich (Aachen)
MRPM Representative: Peter McDonald
EUROMAR Representative: Geoffrey Bodenhausen
EUROMAR Treasurer: Jani Dolinsek
Honorary Members: Robert Blinc
George Bené
Bruno Maraviglia

were approved unanimously. The AMPERE president, Prof. Hans-Wolfgang Spiess, has stepepd down after a 6 year term as the president. The assembly thanked him warmly for his very successful work.

Prof. Jan Schmidt and Prof. Attilo Rigamonti have steped down as members of the AMPERE committee. The bureau and the assembly thanked them for their important contributions to AMPERE.

As new members of the AMPERE committee, the following proposals were approved: Miquel Pons (Spain), Astrid Graslund (Sweden), Olga Lapina (Russia), Fleming Paulsen (Denmark), Ago Samoson (Estonia), Rolf Boelens (The Netherlands), Claudio Luchinat (Italy) Pietro Carretta (Italy). They will be contacted by the secretary general to accept their election.

sig. B.H. Meier
BALANCE OF THE ACCOUNTS OF THE GROUPEMENT
for the period from August 25, 2004 to July 11, 2006

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<tr>
<td>Situation August 25, 2004</td>
<td>104’730.35</td>
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**Membership Fees**
- Individual members: 6’476.20
- Associate members: 5’000.-- 11’476.20

**Conferences**
- EUROMAR Seed capital: 10’000.-- 10’000.--
- Snowbird, Utah: 1’711.80 1’711.80

**Administration**
- Bureau Meeting Zürich: 2’801.10
- AMPERE Bulletins: 2’810.20
- Miscellaneous specs: 56.50 5’667.80

**Bank**
- Interests Portfolio: 1’296.--
- Interests Bank accounts: 421.85
- Tax refund: 211.65
- Booking difference Portfolio 02-04: 2’394.-- 4’323.50
- Handling costs (Bank, Visa, Master Card): 359.16

**Total CHF**
- 16’026.96 17’511.50

**Balance**
- Balance August 25, 2004: 104’730.35
- Total receipts: 17’511.50
- Total of expenditure: 16’026.96
- Balance July 11, 2006: 106’214.89

**On accounts**
- Saving account No. 0-3436-30421248: 51’158.25
- Private account No. 0-1136-00053581: 4’682.09
- Saving account No. 0-3536-30421299: 8’157.55
- 360 “Portfolio Income” account: 42’217.--

**Total CHF**
- 106’214.89

**US$ account**
- Congress Registration Prize winners: 680.29
- Prizes 2005: 6’139.68
- Prizes 2006: 5’632.91

sig. B.H. Meier

AMPERE Bulletin No. 223 13
AMPERE Awards presented at the EUROMAR joint EENC/AMPERE/British NMR-DG Meeting, York, July 16-21, 2006

Prize Committee: M. Mehring (President), R. Blinc. R.R. Ernst, J. Schmidt

AMPERE Prize Winner 2006

The AMPERE Prize 2006 was awarded to Prof. Maurice Goldman, CEA Saclay, France, for his fundamentally important contributions to the development of spin thermodynamics in general and dynamic nuclear polarization (DNP) in particular. In addition his continuing seminal contributions to the further development of the solid- and liquid-state NMR theory are recognized.

The Science of Maurice Goldman:

- Spin Thermodynamics

“Spin Temperature in the Rotating Frame”
Interaction representation introducing a “gauge” (Berry Phase)
Thermal mixing and dynamic nuclear polarization
Practical applications of this theory as experimental or theoretical tools for NMR and EPR
Temperature-dependent free induction decay shape
  “The Goldman-Shen sequence”

Nuclear Magnetic Ordering in high field at sub-microKelvin spin temperatures
A. Abragam and M. Goldman 1982: “Nuclear Magnetism: Order and Disorder”
Further Developments
Nuclear relaxation under off-resonance irradiation of molecules in solution.

Theory adapted at the quantitative analysis of complex chemical exchange processes through a multi dimensional “Kubo-like” formalism.

Prediction of a resonance shift in the EPR of rare-earth ions in solids, through sample spinning, an application and deepening of the Berry Phase concept.

Complete reformulation of the theory of spin-lattice relaxation both within a classical and a quantum-mechanical description of the lattice.

Design of rf irradiation methods for transforming the low-entropy of molecules hydrogenated with para-hydrogen into a high polarization of a nearby $^{13}$C spin.

Raymond Andrew Prize Winner 2006

The Raymond Andrew Prize 2006 was awarded to Dr. Carlos Mattea, Villa Maria, Argentina, Physikalisches Institut, University Ulm, Germany, in appreciation of his outstanding PhD thesis “Molecular dynamics in porous media studied by Nuclear Magnetic Resonance Techniques” where he discovered among others the “flow relaxation effect” which explains the long standing puzzle of a tremendous slowing down of an adsorbate molecule by eight orders of magnitude when interacting with a solid-like adsorbent interface. He also could elucidate the “corsett effect” which appears when polymer melts undergo substantial chain dynamics in confined nano- and microstructured media.

Thesis supervisor: Prof. Rainer Kimmich
Flow Relaxation Effects

Motion along pathways

$T_1$ dispersion in bulk and confined media

bulk PEO 1,685
$(M_w < M_c)$

bulk PEO 10,170
$(M_w > M_c)$

pore diameters from 9 to 57 nm
The Zavoisky Award 2006 to Jan Schmidt

The 2006 Zavoisky Award in Electron Paramagnetic Resonance Spectroscopy was awarded to Professor Jan Schmidt, Huygens Laboratory, Leiden, The Netherlands) in a ceremony marking his outstanding contribution to high-field and high-frequency pulsed EPR and ENDOR techniques applied to semiconductor nanomaterials.

The ceremony was preceded by the Annual Workshop “Modern Development of Magnetic Resonance”, 27–29 September 2006.

The Zavoisky Award was presented on September 29, 2006 in Kazan, the capital city of the Republic of Tatarstan. It was there that academician E. K. Zavoisky discovered EPR in 1944. The Zavoisky Award consists of a Diploma, a Medal and one thousand US dollars.

The Zavoisky Award was established by the Zavoisky Physical-Technical Institute of the Russian Academy of Sciences with support from the Kazan State University, the Springer-Verlag Publishing House, the Republic of Tatarstan, the Tatarstan Academy of Sciences, the AMPERE Society and the International EPR Society. The Award Selection Committee consisted of well-known experts in EPR: Professors G. Feher (La Jolla), D. Gatteschi (Florence), H.M. McConnell (Stanford), K. A. McLauchlan (Oxford), K. Möbius (Berlin), and the Chairman, K. M. Salikhov (Kazan). The selection of the Awardee was made after consultations with the Advisory Award Committee which comprises B. Bleaney (Oxford), Yu. N. Molin (Novosibirsk), and Yu. D. Tsvetkov (Novosibirsk).


The selection of Professor Jan Schmidt was made from many nominations solicited from international experts in EPR.

The Award Ceremony starting in the afternoon of September 29 was attended by about 200 people, among them were the scientists who had participated in the preceding Workshop.

The ceremony was chaired by Professor K. M. Salikhov. He, as the Chairman of the Award Committee, announced the decision of the Zavoisky Award Committee. The presentation was made by the Deputy Prime Minister of the Republic of Tatarstan, Minister of Culture Z.R.Valeeva. The Vice-Rector of the Kazan State University, Professor N. K. Zamov, the Vice-Chairman of the Presidium of the Kazan Scientific Center of the
Russian Academy of Sciences, Professor O. G. Sinyashin, and the President of the Tatarstan Academy of Sciences, Professor A. M. Mazgarov warmly congratulated the laureate. Letters of congratulations from Professor B. H. Meier, President of the AMPERE Society, Professor W. Lubitz, President of the International EPR Society, and Professor A. Bax, President of ISMAR, were handed to Professor Jan Schmidt.

J. Schmidt gave his Zavoisky Award lecture in which he told about four decades in the footsteps of the pioneers in EPR spectroscopy. A concert by a string quartet preceded and followed the ceremony. The event was concluded with a Banquet in honor of Professor J. Schmidt and his outstanding contributions to EPR. During their stay in Kazan the laureate and his spouse visited the museum of history of the Kazan State University, the places of historical and cultural interest in Kazan, and the Raifa monastery.

The Organizing Committee owes special thanks to the Russian Academy of Sciences, Russian Foundation for Basic Research, and the NIOKR Fund of the Republic of Tatarstan.

*Dr. Laila V. Mosina*
Nominations Open for the Zavoisky Award 2007

The Zavoisky Award 2007 will be presented at the International Conference dedicated to the 100th anniversary of E.K. Zavoisky to take place in Kazan in September 2006.

This prestigious award is given in recognition of an outstanding contribution to the development of electron paramagnetic resonance. It is presented by the Kazan Zavoisky Physical-Technical Institute of the Russian Academy of Sciences, Kazan State University, the Tatarstan Academy of Sciences, and Springer-Verlag Wien New York. The lecture of the award-winner will be published in the journal “Applied Magnetic Resonance”.

Nominations are being sought from the EPR community worldwide. A brief presentation of the applicant covering 1–2 pages is expected. The final decision is made by the Award Selection Committee which comprises G. Feher (La Jolla), D. Gatteschi (Florence), H.M. McConnell (Stanford), K. A. McLauchlan (Oxford), K. Möbius (Berlin), and the chairman, K. M. Salikhov (Kazan). The selection of the Awardee is made after consultations with the Advisory Award Committee which comprises B. Bleaney (Oxford), Yu. N. Molin (Novosibirsk), and Yu. D. Tsvetkov (Novosibirsk).

Nominations should be submitted to

Dr. Laila V. Mosina
Executive Secretary of the Zavoisky Award Committee
Kazan Zavoisky Physical-Technical Institute
of the Russian Academy of Sciences
Sibirsky trakt, 10/7
Kazan, 420029
Russian Federation
E-mail: mosina@kfti.knc.ru
Fax: 7-843-2725075

The deadline for submission of nominations is April 1, 2007.
Zürich, October 2006

Call for Nominations for the Raymond Andrew Prize

for an outstanding PhD thesis in the field of magnetic resonance

For the Raymond Andrew Prize 2007 the AMPERE Prize Committee is seeking your help in searching for qualified candidates who completed their dissertation during the period of 2005/2006. The prize will be presented during the EUROMAR in Tarragona (Spain) from 1st to 5th July 2007.

You are kindly invited to submit nominations by e-mail to andrewprice@nmr.phys.chem.ethz.ch.

Suggestions must be received by 1st March 2007 and should include the following documents:

- Nomination letter
- Curriculum vitae
- List of publications and presentations at conferences
- PhD thesis in PDF

The thesis must be written in English. In exceptional cases, the thesis may also be submitted in triplicate as a hardcopy to the AMPERE Secretariat.

Submissions that arrive too late will automatically be transferred to the next year. The prize committee will reconsider excellent contributions for two years in a row.

Sincerely yours,

Gunnar Jeschke
General Secretary
Advances from EUROMAR 2007

Preparations for next EUROMAR meeting to be held in Tarragona from Sunday July 1st to Thursday July 5th 2007 are well on the way. The scientific program will start Sunday afternoon with the ceremony of Prize awards and will run through Thursday afternoon. The conference dinner will close the EUROMAR meeting on Thursday evening. Satellite meetings will take place on Friday July 6th. A COST EPR group meeting and the Iberoamerican (Brazilian, Portuguese and Spanish NMR societies) are already confirmed.

A number of speakers have announced their participation including

Martin Blackledge (F), Paul T. Callaghan (New Zealand), Steve Fesik (USA), Ray Freeman (UK), Ernest Giralt (E), Steffen Glaser (D), Daniella Goldfarb (IL), Wayne Hubbell (USA), Masatsune Kainosho (JP), Lewis Kay (CAN), Arno Kentgens (NL), Malcolm Levitt (UK), John C. Lindon (UK), Andre Merbach (CH), Alex Pines (USA), Michael Romalis (USA), Robert Tycko (USA).

The invited speakers program is still under construction. A number of speakers will be selected from submitted abstracts.

Registration fees have not been decided since a possible major source of financial support has not yet been confirmed but they will be of the same order or lower than in previous EUROMAR meetings. Accommodation is available in numerous hotels at walking distance from the Conference Centre. Since July is high season in the Golden Coast of Tarragona, early hotel registration and travel arrangements are encouraged. The conference web page offers travel and accommodation information.

Tarragona is located in Catalonia, in the North East of Spain at less than 100 Km by motorway to Barcelona and at 7 Km from the Reus airport served by different low cost airlines. Tarragona is a UNESCO World Heritage Site. A firework contest will be running on the same dates at the Tarragona seafront.
Dates to remember are

February 1    Registration opens
March 15     Deadline: application for student fellowships
April 15     Deadline: abstracts for oral presentations
May 15       Deadline: abstracts for poster presentation
June 1       Deadline: late registration fees will be charged
July 1       Conference starts
July 6       Satellite meetings

Conference web site:  http://www.euromar2007.com

Prof. Miquel Pons
University of Barcelona

Chairman EUROMAR 2007
The 5th Alpine Conference on Solid-State NMR

A European Conference on Solid-State Nuclear Magnetic Resonance
New concepts and applications
Chamonix-Mont Blanc, France, 9-13 September 2007

Main Lectures:
R.G. Griffin (Cambridge, MA)
D. Huster (Halle)
M.H. Levitt (Southampton)
J. Marohn (Ithaca)
A.E. McDermott (New York)
A. Pines (Berkeley)
J. Stebbins (Stanford)

Scientific Committee:
Beat Meier (Zürich), Chairman
Zeev Luz (Rehovot)
Philip J. Grandinetti (Columbus)

Organising Committee:
L. Emsley (Lyon)
S. Caldarelli (Marseille)
A. Lesage (Lyon)
M. Bardet (Grenoble)
S. Hediger (Lyon)


Organised under the auspices of the Groupement Ampère and the International Society of Magnetic Resonance.
Report of the event

The AMPERE Nuclear Magnetic Resonance School was organized by the Department of Macromolecular Physics of the Institute of Physics, Adam Mickiewicz University under the auspices of the GROUPEMENT AMPERE and with the financial support of SoftComp Programme. NMR School is a major well-established international event existing for 14 years and attracting many lecturers and participants from the whole world. The School was addressed to young scientists (post graduate students, PhD students and post-doctoral students) and was aimed at acquainting them with theoretical and experimental aspects of NMR methods and its applications, especially in nano-science, materials-science and soft-materials. The School was the forum for presentation of the basic and advanced NMR techniques, recent research, unconstrained discussions and initiating of common studies and cooperation between the scientists.

The programme of the School covered the following topics: Multi Quantum NMR; Multi Dimensional NMR; Relaxation; Diffusion; NMR Imaging; Applications of NMR. Lectures given by the leading world NMR specialist were emphasizing the recent development and novel applications of NMR techniques in materials science, biology and medicine.

The programme of the School was designed for ten days and consisted of two parts: Basic NMR and Tutorial Intensive School with experimental section and basic lectures, held at Adam Mickiewicz University in Poznan; and Advanced NMR with Applications held in Wierzba.

The first part of the school comprised of 9 tutorial lectures delivered by:

- E. Burnell (Vancouver), Canada
  “Multiple Quantum NMR with examples from liquid crystals”

- Z. Gdaniec (Poznan), Poland
  “Two-dimentional NMR spectroscopy”

- K. Husemann (Rheinstetten), Germany
  ”The theory of MAS, CP, CP/MAS - an introduction”
• D. Kruk (Darmstadt), Germany
“Introductory aspects of relaxation”

• D. Michel (Leipzig), Germany
“Pulsed Field Gradients in combination with Magic Angle Spinning NMR – novel prospects for studying heterogeneous materials”

• S. Staff (Aachen), Germany
“Field cycling NMR relaxometry – why change the magnetic field strength, and how to do it”

• S. Steuernagel (Rheinstetten), Germany
“Set-up of solid state NMR experiments – recent advances in spectrometer hardware”

• J. Tritt-Goc (Poznan), Poland
“Basic principles of Magnetic Resonance Imaging”

• J. Wasicki (Poznan), Poland
“NMR under high pressure”

The experimental section (three lab sessions) took part 21 participants. The 8 NMR laboratory practices were available:

• CP-MAS (BRUKER 300 MHz)
Department of Macromolecular Physics, A. Mickiewicz University, Poznan

• Fast Field Cycling Relaxometry (STELAR 8kHz – 20MHz)
Department of Macromolecular Physics, A. Mickiewicz University, Poznan

• High Resolution NMR (BRUKER 600 MHz)
Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznan

• NMR experiments under high pressure
Department of Radiospectroscopy, A. Mickiewicz University, Poznan

• NMR Imaging (BRUKER 300 MHz)
Institute of Molecular Physics, Polish Academy of Sciences, Poznan

• Relaxation (BRUKER 200 MHz)
Department of Macromolecular Physics, A. Mickiewicz University, Poznan

• Diffusion (BRUKER 400 MHz)
The second part of the AMPERE NMR SCHOOL consisted of 20 lectures:

- J. S. Blicharski (Krakow), Poland
  "NMR relaxation spectroscopy"

- B. Blümich (Aachen), Germany
  "Mobile NMR: pipes, paintings, mummies, rocks, and spectra"

- E. Burnell (Vancouver), Canada
  "Physical properties of liquid crystals determined from NMR"

- W. J. Chizhik (St. Petersburg), Russia
  "Complementary investigations of the microstructure of simple electrolyte solutions by NMR-relaxation and computer modelling"

- M. Ernst (Zurich), Switzerland
  "Multi-mode Floquet theory: a tool for understanding heteronuclear decoupling in rotating solids"

- J. Faraissard (Paris), France
  "$^{129}$Xe NMR spectroscopy and $^1$H NMR imaging: two techniques for studying the diffusion and co-diffusion of hydrocarbons in zeolite catalysts"

- F. Fujara (Darmstadt), Germany
  "NMR diffusion studies using ultrahigh static magnetic field gradients"

- F. Grinberg (Leipzig), Germany
  "What can NMR tell us about ordering and reorientational and translational diffusion of fluids constrained in nano-pores?"

- D. Kruk (Darmstadt), Germany
  "Evolution of multispin systems: limitations of the perturbation approach"

- Z. Lalowicz (Krakow), Poland
  "Proton and deuteron spin-lattice relaxation in partially deuterated ammonium compounds"

- C. de Lange (Amsterdam), Netherlands
  "Scope and limitations of accurate structure determination of solutes dissolved in liquid crystals"
• MacKey (Vancouver), Canada
“T₂ relaxation in brain and spine”

• D. Michel (Leipzig), Germany
“NMR and EPR spectroscopy for study of size effects in BaTiO₃ and related perovskite
nanopowders and of materials embedded in mesoporous materials”

• H. Peemoeller (Waterloo), Canada
“Hydration sites and exchange effects in MCM-41 studied by ¹H and ²H NMR”

• E. Roduner (Stuttgart), Germany
“NMR studies of pyridinium salts and the origin of ferroelectricity”

• E. Rössler (Bayreuth), Germany
“From simple liquid to polymer melt - an NMR relaxometry study on the dynamics in
polybutadiene”

• H. W. Spiess (Mainz), Germany
“Advanced solid-state NMR methods for studying structure and proton transport in hydrogenc bonded systems”

• J. Stepisnik (Ljubljana), Slovenia
“Spectral characterization of diffusion in porous media and dynamics in fluidized granular
system by CPMG sequence”

• D. Suter (Dortmund), Germany
“Spin-based quantum computing”

• J. Tritt-Goc (Poznan), Poland
“How we can interpret the T₁ dispersion of MC, HPMC and HPC polymers above glass
temperature?”.

Results were presented in the form of posters (38) and as the oral contributions (5):

• B. Blicharska (Krakow), Poland
“Nuclear spin-relaxation in biopolymers: model of molecular dynamics”

• R. Kausik (Ulm), Germany
“Polymer dynamics in mesoscopic porous media: NMR signatures of transition from bulk
to reptation dynamics due to the corset effect”

• G. S. Krasnopolsky (Chelyabinsk), Russia
“Correlation time spectrum in linear polymer melts and Doi-Edwards polymer dynamics model”

- E. I. Kuznetsova (Moscow), Russia

“Multiple-quantum NMR dynamics of open alternating spin chains in solids”

- G. Stoch (Krakow), Poland

“Simple theoretical framework for Single Point Imaging”

The AMPERE NMR summer school was organized in two places. First one is Adam Mickiewicz University “Morasko” Campus in Poznan (Poland), Basic NMR and Tutorial Intensive School with experimental section at the Department of Macromolecular Physics, A. Mickiewicz University; Department of Radiospectroscopy, A. Mickiewicz University; Institute of Molecular Physics, Polish Academy of Sciences; Institute of Bioorganic Chemistry, Polish Academy of Science and basic lectures. The second (Advanced NMR with Applications) in the Conference Centre in Wierzba (Poland) at the Great Mazurian Lakes.

The 82 participants were taken part in 28 tutorial lectures presented by distinguished physicists from Germany, Russia, Canada, Netherlands, Slovenia, Switzerland, France and Poland. The programme also contained 5 oral contributions and 38 posters.

The school has its own website (www.amu.edu.pl/~school) with information concerning organizers, programme, registration, travel, accommodation and school details. The first and the second announcement and travel information were sent by e-mail to all potential participants involved in NMR researches. The participants were able to present their results in form of oral presentations and posters, abstracts of which were published as printed proceedings (AMPERE NMR BOOK OF ABSTRACTS) and some of the tutorial lectures and oral contributions are available on website. The participants had the opportunity to get acquainted the Polish culture during the school social events: guided bus sightseeing tour around the Poznan, Mazurian Lakes boat tour, Popielno Museum guided tour, and Polish folklore – dancing and singing performance.

Stefan Jurga
Saint Petersburg University continues a series of annual International Symposium and Summer School in Saint Petersburg “Nuclear Magnetic Resonance in Condensed Matter”.

The third meeting under the subtitle “NMR in Heterogeneous Systems” was opened on Sunday, July 09, and was closed on Thursday, July 13, 2006. The goal of the Meeting was to provide a platform to scientists and students for use of all aspects of nuclear magnetic resonance methods and techniques as well as computational and theoretical approaches for the investigation of structure, dynamics, and other properties of heterogeneous systems. The Meeting was attended by 97 registered participants from 10 countries.

There were 15 lectures, presented by following speakers:

V. I. Chizhik (Saint Petersburg, Russia)
S. V. Dvinskikh (Stockholm, Sweden)
U. Eichhoff (Rheinstetten, Germany)
P. Flauder (Lyon, France)
A.V. Gribanov (Saint Petersburg, Russia)
V.V. Matveev (Saint Petersburg, Russia)
D. Kruk (Krakow, Poland)
D. Michel (Leipzig, Germany)
Yu.M. Petrusevich (Moskow, Russia)
P.I. Polyakov (Donetsk, Ukrain)
I. G. Shenderovich (Berlin, Germany)
T.N. Smekalova (Saint Petersburg, Russia)
V.V. Volkov (Moskow, Russia)

Moreover, there were 15 contributed talks (20’) and 70 poster presentations. The organizers published the Book of Abstracts.

NMRCM 2006 took place at the Petrodvorets Campus of Saint Petersburg State University. Petrodvorets (a satellite-town of Saint Petersburg) is famous for its parks with fountains and palaces. The social program consisted of two excursions (in Petrodvorets and Saint Petersburg), a welcome-party, and a conference dinner.
The current information (including photographs) on the NMRCM 2006 is available at http://nmr.phys.spbu.ru/NMRCM-2006/

The NMRCM 2006 was supported by
- Administration of Saint Petersburg
- Russian Foundation for Basic Research
- Bruker-BioSpin
- “Dynasty” Foundation

The 4th meeting of NMRCM will be organized in July 09 – 13, 2007.

V. Chizhik
Report on the 8th International Bologna Conference on Magnetic Resonance in Porous Media

The Eight International Bologna Conference on Magnetic Resonance in Porous Media (Bologna MRPM8), chaired by Paola Fantazzini (Physics Department, University of Bologna) was held successfully from September 10th to 14th 2006. The Conference took place at the prestigious Engineering Faculty of the University of Bologna, Italy, which has put its facilities at our disposal free of charge for the smooth and fruitful conduct of the meeting.

This was the eight event in a series of outstanding conferences, started in Bologna in the year 1990, devoted to the progress of our understanding of structure, molecular dynamics, and fluid transport in porous media, by use of Magnetic Resonance techniques.

Since the vitality and interest of these Conferences and the consideration that the community which the conference series serves had grown considerably over the years, after MRPM7 the community has joined the Groupement Ampere as the MRPM Division, and the Conferences, which now are explicitly called the “Bologna MRPM Conferences,” are Ampere Events.

The eight MRPM conference proved again to be a very stimulating event, very well attended, with about 170 delegates from some 20 different countries spread over five continents. As with previous meetings, both academia and industry were well represented. Some 120 participants became Groupement Ampere members by subscribing Ampere membership at the Conference.

The topics covered a wide range of magnetic resonance methods and applications with a wide variety of new experimental results, theoretical models and apparatus.

As for all the previous Conferences, Paola Fantazzini is collecting and organizing the reviewing process for the manuscripts to be published in the Proceedings, which will appear in a special volume of Magnetic Resonance Imaging.

In the closing of Bologna MRPM8, there was awarded the Giulio Cesare Borgia Prize for Young Researchers (3000 Euros). The committee, composed of Bernhard Blümich, Paul Callaghan, Pabitra Sen and Paola Fantazzini, assigned the prize to Rustem Valiullin, with the following inscription: *For his outstanding leadership in the analysis of porous media by NMR techniques. This work will have major impact in the understanding of the physics of fluids confined in pore networks.*

During the General Assembly, chaired by Peter McDonald, it was decided that the 9th Bologna MRPM Conference will be held in July 2008 in Boston, organised by the
Schlumberger Doll Research Center. The 10th edition is expected to be held in Leipzig (Germany) in 2010.

It was agreed that Jean-Pierre. Korb (MRPM7 Chair), Paola Fantazzini (MRPM8 Chair), Pabitra Sen (MRPM9 Chair), Peter McDonald and Siegfried Stapf should serve as the steering committee for the next two years.

October 26th 2006

Paola Fantazzini
Chair Bologna MRPM8
paola.fantazzini@unibo.it
### Future Conferences

#### AMPERE Events

**2007**

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Date</th>
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<tbody>
<tr>
<td>EUROMAR joint EENC/AMPERE/British NMR-DG meeting</td>
<td>Tarragona, (Spain)</td>
<td>July 1-6, 2007</td>
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<tr>
<td>International Symposium and Summer School</td>
<td>St. Petersburg (Russia)</td>
<td>July 9-13, 2007</td>
</tr>
<tr>
<td>9th International Conference on Magnetic Resonance Microscopy</td>
<td>Aachen, (Germany)</td>
<td>September 3-7, 2007</td>
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<tr>
<td>5th Alpine Conference on Solid-State NMR</td>
<td>Chamonix, (France)</td>
<td>September 9-13, 2007</td>
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**2008**

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<thead>
<tr>
<th>Event</th>
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<tbody>
<tr>
<td>EUROMAR joint EENC/AMPERE/British NMR-DG meeting</td>
<td>St. Petersburg (Russia)</td>
<td>July 6-11, 2008</td>
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### Other Events

**2007**

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<thead>
<tr>
<th>Event</th>
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<tbody>
<tr>
<td>ISMRM - ESMRMB Joint Annual Meeting</td>
<td>Berlin, (Germany)</td>
<td>May 19-25, 2007</td>
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<td>Note: New date &amp; location!</td>
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<tr>
<td>XI Chianti Workshop on Magnetic Resonance</td>
<td>Vallombrosa, (Italy)</td>
<td>June 3-8, 2007</td>
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<tr>
<td>49th Rocky Mountain Conference on Analytical Chemistry</td>
<td>Beaver Run Resort, Breckenridge, CO, (USA)</td>
<td>July 22-26, 2007</td>
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<tr>
<td>2007 NANUC NMR BootCamp</td>
<td>Edmonton, Alberta, (Canada)</td>
<td>August 13-17, 2007</td>
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**2008**

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<tr>
<th>Event</th>
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<th>Date</th>
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<tbody>
<tr>
<td>16th ISMRM Meeting</td>
<td>Toronto, Ontario, (Canada)</td>
<td>May 3-9, 2008</td>
</tr>
<tr>
<td>Year</td>
<td>Meeting</td>
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<tr>
<td>2008</td>
<td>23rd ICMRBS</td>
<td>San Diego, California (USA)</td>
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<td>2009</td>
<td>17th ISMRM Meeting</td>
<td>Honolulu, Hawai’i, (USA)</td>
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<td>2010</td>
<td>18th ISMRM Meeting</td>
<td>Stockholm, (Sweden)</td>
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<td>2011</td>
<td>19th ISMRM Meeting</td>
<td>Montréal, Québec, (Canada)</td>
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