

Vol. 75, No. 1

ISSN 0432-7136

BULLETIN DU GROUPEMENT

d'informations mutuelles



Groupement  
**AMPERE**

SE CONNAÎTRE, S'ENTENDRE, S'ENTRAIDER

January to March 2026

No. 302

years

Office: ETH Zürich, Institute of Molecular Physical Science  
8093 Zürich, Switzerland, [www.ampere-society.org](http://www.ampere-society.org)

## Contents

<b>Editorial</b>	1
<b>Portrait</b> Giulia Mollica	2
<b>Report:</b> AMPERE Biological Solid-State NMR School 2025 <b>Awards</b>	5 8
<b>First announcement:</b> AMPERE NMR School 2026, Zakopane	9
<b>Obituary</b> James (Jim) W. Emsley (1934 - 2026)	18
<b>Minutes of the meeting of the AMPERE Bureau</b>	20
<b>Finances of the Groupement AMPERE and Subdivisions</b>	24
Executive Officers and Honorary Members of the Ampere Bureau	26
AMPERE Committee	28
Future conferences and Ampere events	30

If you would like to become a member of the AMPERE Society, you can register online under: [www.ampere-society.org](http://www.ampere-society.org)

## Editorial



Dear members of the Groupement AMPERE,

Seventy-five years ago, in the fall of the year 1951, the Groupement AMPERE was founded. This makes AMPERE probably one of the oldest scientific societies in the field of magnetic resonance. The Groupement AMPERE tries to organize and coordinate different events in the field of magnetic resonance mostly in EUROPE, including EUROMAR, specialized conferences and schools in various fields, publishing the open-access journal „Magnetic Resonance“, providing resources for MR researchers, and more. This is made possible by you, the members who are the basis of AMPERE. Participation in one of the AMPERE conferences or schools always includes a one-year membership in the Groupement AMPERE.

Please, continue to support the Groupement AMPERE in the future by participating in our meetings, by submitting manuscripts to „Magnetic Resonance“, or by getting actively engaged in one of the projects or divisions at AMPERE. We hope that the Groupement AMPERE will continue to prosper and will be able to celebrate the centenary in 25 years. I hope to see many of you in person this summer at EUROMAR or one of our other conferences.

Matthias Ernst  
Secretary General  
Groupement AMPERE

## Portrait:

### Giulia Mollica

#### Why magnetic resonance and why NMR and MRI?

I was a master student at the University of Pisa in physical chemistry, when I attended the first day of the class "Theory of NMR". My professor thought it was a good idea to start the class speaking about spin echoes without even having defined what a spin was. I left the class feeling miserable, but at the same time I felt the urge to understand. So, I decided to go on and embrace the challenge. And I have been captivated ever since.

#### What is your favorite frequency?

I am going to sound very ordinary, but it is probably  $^{13}\text{C}$ , as I have been working mostly on organic materials since my PhD. It is a nice  $\frac{1}{2}$  spin, almost omnipresent, but it can turn out to be a tricky one. For instance, measuring  $^{13}\text{C}$ - $^{13}\text{C}$  long-range J or dipolar couplings is very challenging, especially at natural isotopic abundance. This has been a topic I have been working on a lot a few years ago and that I still enjoy very much.

#### What do you still not understand?

So many things! I feel I will be a forever learner in NMR. But this is also what I like the most of NMR, it is challenging, and definitely never boring. If I have to choose one aspect of NMR I would like to understand better, that would probably be relaxation theory.

#### Luckiest experiment you have ever done.

I try to repeat myself that luck doesn't exist, good results only come because of curiosity, that lead to crazy ideas, that lead – sometimes – to unexpectedly nice results! Anyway, luck (or whatever it is) happened a few times. Recently we were studying a molecular solid that we believed we had synthesized in a new pure crystalline form (identified by X-ray diffraction) using MAS DNP. The idea was to finally be able to determine the crystal structure of this polymorph, which couldn't be determined by neither neutron or X-ray diffraction. We observed that the spectrum was slightly different when acquired in the presence or in the absence of microwave irradiation. By digging a little we realized this was due to the presence of a tiny amount of a second polymorph of the molecule that could only be revealed by DNP! Then we went farther and were able to characterize the domain distributions and relative amount of the two polymorphs by a quantitative analysis of spin diffusion. Although we still haven't been able to solve the structure of this polymorph, this was the first example of this kind of analysis on a chemically homogeneous sample.

#### What was the worst mistake you have made during your lab time?

I was a PhD student in solid-state NMR in Pisa with Marco Geppi, and my PhD programme encouraged us to spend 6 months abroad in a different lab. Malcolm Levitt was so kind to accept me to join his group in Southampton. My project there focused on the development of  $^{13}\text{C}$ - $^{13}\text{C}$  recoupling sequence on uniformly labelled molecular solids. We were testing new sequences all day (and night) long, and once, our decoupling power went a little too high for a little too long...we ended up burning the probe. But Malcolm was very cool! It was a hard lesson, which I now tell my students when we sit in front of the spectrometer and I remember them to check power levels and durations before starting an experiment. Sometimes they don't realize how different microseconds and seconds are in NMR...



#### Most memorable conference story?

I have so many conference stories...Probably one of the most memorable ones happened in Chamonix. I think it was 2005 (I was a PhD student at the time), when a Symposium was organized for Alex Pines 60<sup>th</sup> birthday during the Alpine Conference. Erwin Hahn was attending the conference: he was – and still is – my absolute myth. Walking past him, I stumbled in his walking stick, almost fell, and even worst, almost made him fall. Luckily nothing dramatic happened.

#### With whom (historical person) would you like to meet?

There are many...I think of three great women I would have loved to have a chat with: Maria Montessori, Rosalind Franklin, Artemisia Gentileschi. All brought a revolution, unfortunately the relevance of their work was not immediately recognized for all of them.

#### When do you get your best ideas?

I need my mind to be free to flow, which means I need to evacuate bad stress. I found that the most favorable moments can be when I am running long distances at an easy pace, or when I do a manual activity, especially drawing. Probably I need to do it more often.

### If you had just one month time for travelling - where would you go to?

On the mountains, or somewhere else immersed in the nature, where I can spend my time walking, running, biking, reading, drawing. A quiet place where I can take my time, choosing whenever I need to pause, no constraints. A place I love and often go to : Dolomites. A place I dream to go since I am little: Patagonia.

### Your idea of happiness?

Very simple. The moments spent together with my family.

Position: CNRS Research director

#### Awards:

Distinguished member of the French Chemical Society  
ERC Starting Grant "STRUCTURE"

Homepage: mollicalab.fr

Education: University of Pisa (PhD), Aix-Marseille University (Habilitation)

Interests: art, drawing, reading, running (road & trail)

### Report:

#### AMPERE Biological Solid-State NMR School 2025

Garching, October 20-24, Germany

Following the tradition of earlier meetings in Berlin (2006/2021), Aarhus (2008/2023), Leiden (2010), Brno (2012), Munich (2014), Palma de Mallorca (2016/2018), the 10th international training School on Biological Solid-State NMR was held this year at the Technical University Munich in Garching in the time period 20.-24.10.2025.

The school was co-organized by Anja Böckmann (IBCP, CNRS Lyon), Matthias Ernst (ETH Ashift assignment strategies and methods for the determination of structures in the solid-state, simulation of pulse schemes and line shapes using SIMPSON, principles and applications of Dynamic Nuclear Polarization (DNP), applications of solid-state NMR in microcrystalline systems, membrane proteins, amyloid fibrils and large soluble protein complexes. The lectures were complemented by practical sessions with exercises on Average Hamiltonian theory, SIMPSON, CCPNmr, ssNMRLib and spin dynamics with SLEEPY and relaxation dispersion experiments under MAS.

The speakers listed below have participated in the school and gave presentations. We thank all the 19 lecturers for their excellent contributions.

Speaker	Affiliation	Title of presentation
Benjamin Bardiaux	Institut Pasteur Paris, France	Structure calculation
Anja Böckmann	CNRS Lyon, France	Sample preparation
Björn Corzilius	Universität Rostock, Germany	DNP: Principles and practice
Matthias Ernst	ETH Zürich, Switzerland	Average Hamiltonians
Victoria A. Higman	Leicester University, United Kingdom	CCPN (introduction and practical)
Piotr Klukowski	ETH Zürich, Switzerland	Automated assignment and structure
Rasmus Linser	TU Dortmund, Germany	$^1\text{H}$ /fast, $^{13}\text{C}$ , and $^1\text{H}$ assignments

Guinevere Mathies	University Konstanz, Germany	NMR instrumentation
Niels Chr. Nielsen	Aarhus University, Denmark	Dipolar recoupling
Hartmut Oschkinat	FMP Berlin, Germany	The future of biological solid-state NMR
Guido Pintacuda	CNRS Lyon, France	NMR of paramagnetic systems
Bernd Reif	TU Munich, Germany	Principles of dynamics
Paul Schanda	IST Klosterneuburg, Austria	Quantification of dynamics / pulse sequence library
Albert A. Smith-Penzel	University Leipzig, Germany	Time-dependent Hamiltonians / exercise on dynamics
Benjamin Tatman	IST Klosterneuburg, Austria	Quantification of dynamics / exercise on dynamics
Zdeněk Tošner	Charles University Prague, Czech Republic	Simulation and software
Thomas Vosegaard	Aarhus University, Denmark	Simulation and software
Markus Weingarth	Utrecht University The Netherlands	Solid-state NMR and drug discovery
Thomas Wiegand	RWTH Aachen, Germany	The Hamiltonian operator

Numerous research groups send their PhD and some Master students to the school to learn the state-of-the-art in the field. The wide range and diversity were reflected as well in the 33 participants (54% female) from 12 countries.

During flash talks student had the opportunity to present themselves and their work. In addition, we had lively discussions on the various projects at two evening poster sessions. Five Ampere poster prizes were awarded to Dorothea Dierks (TU Dortmund), Wiebke Hadwich (TU Freiberg), Edvards R. Bensons (University Rostock), Rebecca Calamandrei (CERM Firenze) and Vinay Ganapathy (Charles University Prague). The poster prizes were selected based on online votes from all lecturers.

As a novel element in the school, companies were invited to present short talks. This was a good opportunity to learn about new products and special isotopically labeled

chemicals needed for protein expression, new solid-state NMR probes, developments towards higher magnetic field strengths, and MAS rotor packing tools. On the other hand, this session helped to better understand how  $^{13}\text{C}$  carbon monoxide and deuterium oxide are produced and understand why there is currently a shortage in the supply of these isotopically enriched compounds.

During a welcome reception, two poster sessions and a conference dinner, food was served to prevent dissociation of the participants from the university complex. The “Butter-Brezn” were indispensable to keep up the motivation and focus of students and teachers during the school.

We thank all the sponsors for supporting this summer school financially.



Figure 1. Group photo taken at 10<sup>th</sup> biological solid-state NMR school that took place on 20-24 October 2025 at the Institute of Advanced Studies (IAS) of the TU Munich in Garching. Impressions from the campus, the lecture hall, and the poster prize awardees.

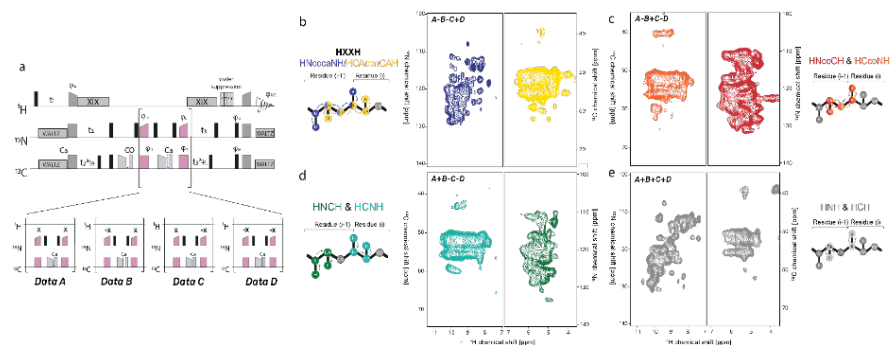
**Poster Prize:**  
**AMPERE Biological Solid-State NMR School 2025**  
**Dorothea Dierks**

**Accelerating Backbone and Sidechain Mapping with Interleaved Solid-State NMR**

Dorothea Dierks, Alexander Klein, Rasmus Linser

TU Dortmund University, Faculty of Chemistry and Chemical Biology, Otto-Hahn-Straße 4a, 44227 Dortmund, DE

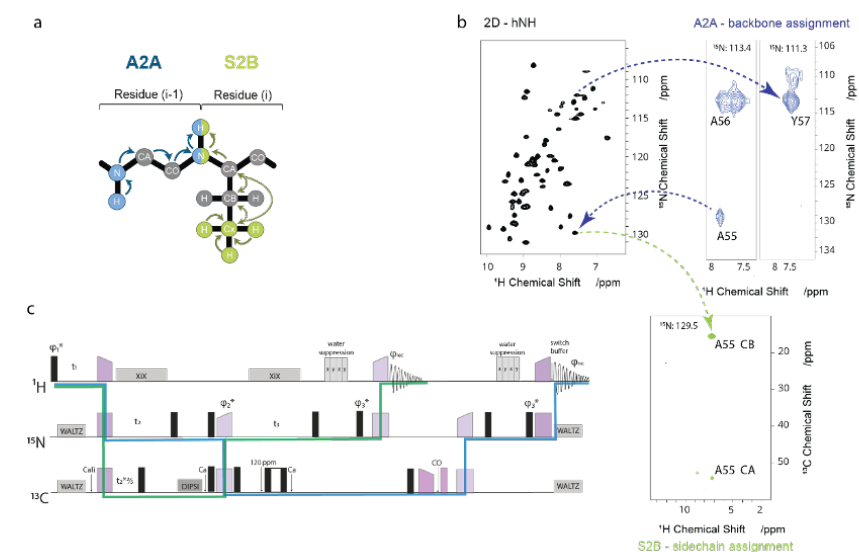
Solid-state NMR (ssNMR) spectroscopy is a valuable method to study structures and dynamics of proteins, especially for larger molecular systems. One of the main challenges in the field is the resonance assignment, as this step is essential for all further investigations. Although higher-dimensionality NMR experiments help to reduce spectral overlap and make resonance assignment less ambiguous, in practice, these experiments usually require long measurement times. Here, we introduce two interleaved four-dimensional pulse sequences to streamline backbone and sidechain assignments. The first experiment, named HXXH, is based on the RAVASSA<sup>1</sup> approach but specifically involves H<sup>α</sup> protons in partially deuterated samples to accelerate backbone assignments by simultaneously acquiring four-dimensional amide-to-amide correlations (HNNH)<sup>1</sup> and H<sup>α</sup>-to-H<sup>α</sup> correlations (HCCH) at moderate magic-angle spinning rates. The amide-to-amide correlations directly link sequential amino acids and can be used to perform a sequential backbone walk. The additional H<sup>α</sup>-to-H<sup>α</sup> pathway can be utilized to resolve assignments when there are ambiguities or serve as a control. The pulse sequence is based on cross-polarization (CP) and the chemical-shift evolution of the hetero-nuclei is recorded in a time-shared manner.



**Figure 1a:** Pulse sequence for the HXXH experiment consisting of four individual experiments defined as Data A, B, C, and D with differential phases of the NC-CP transfers. **b-e** Magnetization transfer pathways and hXXH planes in two-dimensional test versions of the four-dimensional experiment. The spectra result from linear combinations of Data A, B, C, and D as indicated on the top right.

To connect both pathways, a multiplexing approach was used, making use of orphan magnetization that remains on the source nuclei after a CP step<sup>2,3</sup>. Applied to the SH3 domain of chicken  $\alpha$ -spectrin with inverse fractional deuteration<sup>4</sup>, the multiplexing strategy gives simultaneous access to both intraresidual (HNCAHA/HACANH) and interresidual (HNcoCAHA/ HACAcNH) correlations in larger rotors than previously proposed.

The second experiment targets the assignment of sidechain protons by integrating a 4D sequential amide-to-amide experiment with a sidechain-to-backbone transfer in a time-shared manner<sup>1,5</sup>. Building on the initially assigned amide and nitrogen chemical shifts, sidechain carbon and proton signals for individual amino acids can be systematically mapped.



**Figure 2. a** Magnetization transfer pathway for the interleaved four-dimensional experiment A2AaS2B. **b** Exemplary backbone walk and sidechain assignment for a SH3 domain of  $\alpha$ -spectrin with iFD labeling based on 3D experiments at 55 kHz MAS, in a 1.3 mm rotor on a 500 MHz spectrometer **c** pulse scheme.

Currently, this approach is being developed further for the assignment of methyl protons in larger proteins, using human carbonic anhydrase II as larger model system, employing a uniformly-<sup>13</sup>C and CHD<sub>2</sub> ILV labeling scheme. Methyl protons not only act as sensitive dynamical reporters, but their assignment is also critical for robust quantitative analyses of protein conformational flexibility and ligand binding.

References:

1. Klein, A., Vasa, S. K. & Linser, R. 5D solid-state NMR spectroscopy for facilitated

- resonance assignment. *J. Biomol. NMR.* 77, 229–245 (2023).
2. Sharma, K., Madhu, P. K., Agarwal, V. & Mote, K. R. Simultaneous recording of intra- and inter-residue linking experiments for backbone assignments in proteins at MAS frequencies higher than 60 kHz. *J. Biomol. NMR.* 74, 229–237 (2020).
3. Stanek, J. et al. Automated Backbone NMR Resonance Assignment of Large Proteins Using Redundant Linking from a Single Simultaneous Acquisition. *J. Am. Chem. Soc.* 142, 5793–5799 (2020).
4. Medeiros-Silva, J. et al. <sup>1</sup>H-Detected Solid-State NMR Studies of Water-Inaccessible Proteins In Vitro and In Situ. *Angewandte Chemie (International ed. in English)* 55, 13606–13610 (2016).
5. Klein, A., Vasa, S. K., Söldner, B., Grohe, K. & Linser, R. Unambiguous Side-Chain Assignments for Solid-State NMR Structure Elucidation of Nondeuterated Proteins via a Combined 5D/4D Side-Chain-to-Backbone Experiment. *J. Phys. Chem. Lett.* 13, 1644–1651 (2022).

**Poster Prize:**  
**AMPERE Biological Solid-State NMR School 2025**  
**Wiebke Hadwich**

**Structural characterization of fractionated beech lignin using NMR spectroscopy and ultrahigh resolution mass spectrometry**

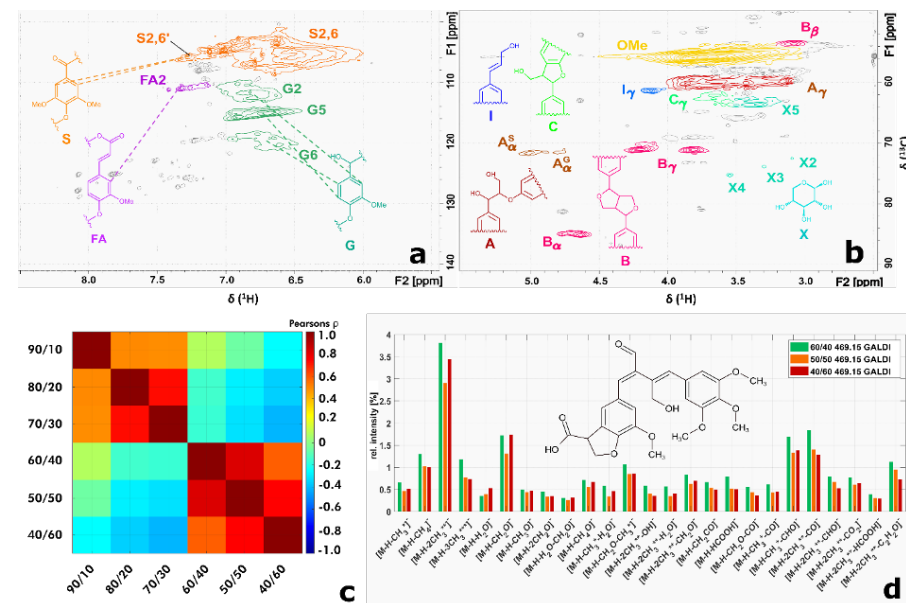
Wiebke Hadwich,<sup>1</sup> Erica Brendler,<sup>1</sup> Jan Zuber,<sup>1</sup> Martina Bremer,<sup>2</sup> Steffen Fischer,<sup>2</sup> Carla Vogt<sup>1</sup>

<sup>1</sup> Institute of Analytical Chemistry, TU Bergakademie Freiberg, Germany  
<sup>2</sup> Institute of Plant and Wood Chemistry, TU Dresden, Germany

Lignin is a complex aromatic biopolymer that occurs alongside cellulose and hemicellulose in the cell walls of biomass and is one of the most important renewable sources of aromatic compounds. Despite this, lignin is predominantly incinerated as a waste product in the pulp industry, as its complex and variable polymer structure makes targeted use difficult. [1-3] The aim of this work is to elucidate the detailed structure of an exemplary beech kraft lignin, which was obtained via industrially relevant kraft pulping and fractionated with various water/acetone mixtures.

Liquid NMR spectroscopy (<sup>1</sup>H-, <sup>1</sup>H, <sup>13</sup>C HSQC-, quantitative <sup>13</sup>C-NMR) and solid-state NMR spectroscopy (<sup>13</sup>C SP/MAS-NMR und CP/MAS-NMR) as well as ultra-high-

resolution FT-ICR mass spectrometry were combined for these analyses. HSQC-NMR shows that the investigated beech kraft lignin consists predominantly of guaiacyl (G) and syringyl (S) units, which are mainly linked via β-O-4', β-β' and β-5' bonds (Fig. 1, a-b). In addition to the structures typical for lignin, accompanying substances such as sugars, lipids, and tannins were detected in NMR and MS analyzes, emphasizing the complexity of the samples. Tandem mass spectrometry was used to investigate structural differences of characteristic precursor ions in different water/acetone mixtures by correlating the neutral losses after collision induced dissociation (Fig. 1, c). Based on neutral losses with high correlations a molecular structure for the precursor ion m/z 469,15 observed in acetone-rich fractions was proposed (Fig. 1, d). These initial analyses of the molecular organization and linkage patterns represent the first step toward fully realizing lignin's potential as a renewable resource, paving the way for its higher-value applications beyond mere energy production.



**Figure 1:** a) <sup>1</sup>H, <sup>13</sup>C HSQC-NMR of the aromatic and b) aliphatic region of beech kraft lignin extracted with 60/40 v% water/acetone mixture, c) correlation matrix of neutral losses of precursor ion m/z 469,15 in different water/acetone mixtures after collision induced dissociation, d) proposed structure of precursor ion m/z 469,15 in acetone-rich mixtures from neutral loss analysis.

References:

1. F. G. Calvo-Flores, J. A. Dobado, *ChemSusChem* 2010, 3, 1227.
2. C. Cui, L. Zhu, Z. Shi, Z. Zhou, F. Qi, *ChemSusChem* 2025, 18, e202401827.
3. Y. Liao, B. F. Sels, *Lignin Chemistry*, Wiley, 2024.

**Poster Prize:**  
**AMPERE Biological Solid-State NMR School 2025**  
**Edwards R. Bensons**

**Selective Boost of Spin Diffusion Pathways under Site-Specific DNP**

Edwards R. Bensons,<sup>1</sup> Thomas Biedenbänder,<sup>1</sup> Johanna Klütz,<sup>1</sup> Björn Corzilius<sup>1,2</sup>

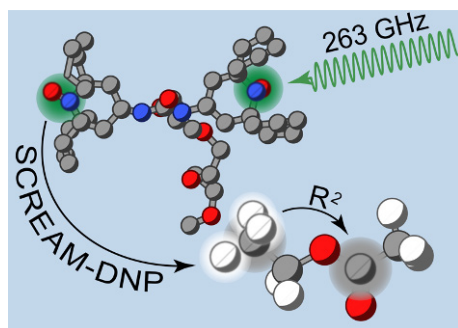
<sup>1</sup> Institute of Chemistry and Department Life, Light & Matter, University of Rostock, Albert-Einstein-Str. 27, 18055 Rostock, Germany

<sup>2</sup> Leibniz Institute for Catalysis, Albert-Einstein-Str. 29A, Rostock, Germany

Magic-angle spinning (MAS) solid-state NMR is a unique technique in the repertoire of analytical methods for structural biology and materials science. In the past decade its application has undergone significant advancements through the development and commercialization of dynamic nuclear polarization (DNP) which significantly increases sensitivity, allowing for previously deemed unfeasible experiments. DNP utilizes the polarization transfer from free electrons to nuclei during microwave irradiation of the electron resonances yielding a significant hyperpolarization of the sample.

A significant interest in the field lies in the investigation of the processes that occur during the DNP experiment, both to enhance comprehension and to leverage this knowledge to develop DNP-exclusive experiments. In this work the light is shed on the <sup>1</sup>H-<sup>13</sup>C cross relaxation process that is active in methyl groups at 100 K and is used to site-specifically introduce hyperpolarization. Once polarization is transferred to methyl carbons it further spreads through <sup>13</sup>C-<sup>13</sup>C spin diffusion to carbon atoms in proximity. This serial process is exclusively active under DNP

and is utilized in the SCREAM-DNP (Specific Cross-Relaxation Enhancement by Active Motions under DNP) experiment.[1] The central objective of this work is the optimization and utilization of the spin diffusion process that spreads the polarization from the methyl groups through the <sup>13</sup>C network. A key question here is the MAS dependence of the rate constant which we investigated in an ethyl acetate model compound. We successfully confirmed our hypothesis that the spin diffusion rate constant is strongly MAS-dependent and experiences a significant increase with the recoupling conditions of rotational resonance. These findings demonstrate that the reintroduction of the dipolar coupling can also be used for the selective boost of polarization transfer pathways.[2]



**Figure 1:** Stylized polarization transfer from the electron source (biradical AMUPol) to the ethyl acetate model compound.

In summary this work focuses on the fundamental investigation of the processes active under DNP but also with the goal in mind to use this knowledge for further improving the methodological portfolio of DNP

References:

1. D. Daube, et al., J. Am. Chem. Soc. 2016, 138, 16572–16575.
2. T. Biedenbänder, et al., ChemPhysChem 2023, DOI: 10.1002/cphc.202300206.

**Poster Prize:**  
**AMPERE Biological Solid-State NMR School 2025**  
**Rebecca Calamandrei**

**Accelerating Backbone and Sidechain Mapping  
with Interleaved Solid-State NMR**

Rebecca Calamandrei,<sup>1,2,3</sup> Linda Cerofolini,<sup>1,2,3</sup> Francesca Sacco,<sup>1,2,4</sup> Bianca Susini,<sup>1,2,3</sup> Sara Calozzo,<sup>1,2,3</sup> Pasquale Russomanno,<sup>1,2,3</sup> Enrico Ravera,<sup>1,2,3</sup> Fabio Baroni,<sup>4</sup> Marco Fragai<sup>1,2,3</sup>

<sup>1</sup> Magnetic Resonance Center (CERM), University of Florence, Via L. Sacconi 6, 50019 Sesto Fiorentino, Italy.

<sup>2</sup> Department of Chemistry „Ugo Schiff“, University of Florence, Via della Lastruccia 3, 50019 Sesto Fiorentino, Italy.

<sup>3</sup> Consorzio Interuniversitario Risonanze Magnetiche di Metalloproteine (CIRMMP), 50019 Sesto Fiorentino, Italy.

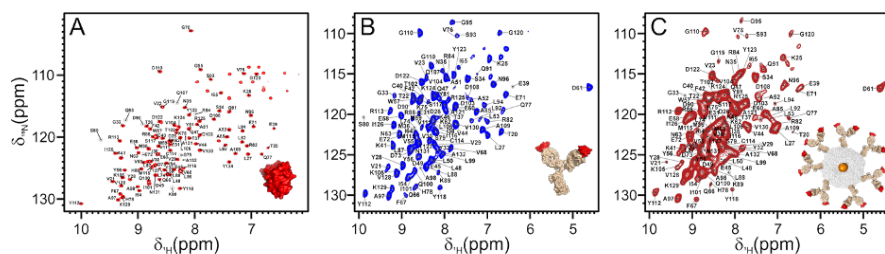
<sup>4</sup> Analytical Development Biotech Department, Merck Serono S.p.a, 00012 Guidonia, RM, Italy.

In recent years, an emerging field in innovative pharmaceuticals has focused on designing novel and multi-functional probes that can find application not only in molecular imaging but also in drug delivery and treatment. For these probes named theragnostics, the molecular targeting capability is a critical feature for achieving high therapeutic and diagnostic efficacy while minimizing toxicity. Many theragnostics use nanoparticles. These nanotheragnostics target specific molecules on cells, as well as taking advantage of the unique characteristics of pathological tissue. The molecular target is typically a biomolecule that is selectively present or overexpressed on the surface of pathological cells and recognized with high affinity by an antibody or a targeting protein. These targeting systems can benefit from structural information obtained by investigating the antibody-target complex allowing to increase the affinity and selectivity.

However, the structural characterization of these complexes presents significant challenges, and no examples of macromolecular complexes involving an antibody anchored to the surface of nanoparticles and its pharmacological target have been reported so far. The targeting capability is typically achieved by covalently immobilizing the selected antibody on the surfaces of the nanoparticles. While suitable linkers and functional groups for conjugation can be designed and selected, we still cannot decipher at the atomic-level detail the effects of the conjugation on the target recognition ability of the grafted antibody.

The complexity, heterogeneity, flexibility, and size of nanoparticles hinder the use of solution Nuclear Magnetic Resonance (NMR), X-ray crystallography (X-ray), Cryo-Electron Microscopy (cryo-EM) and Mass Spectrometry (MS) for the structural characterization of these systems. Consequently, a crucial step in nanotheragnostic development pipeline remains more empirical than rational, increasing uncertainties about the pharmacodynamic properties of these systems and leading to their suboptimal clinical use.

In this context, solid-state NMR (SSNMR) has proven that it can access atomic-level information on proteins that are embedded, grafted, or mixed with inorganic and/or organic components. Therefore, this project aimed at verifying whether it was possible to characterize the interaction between antibodies bound to nanoparticles and the target protein using SSNMR.



**Figure 1:** (A) 2D  $^1\text{H}$ - $^{15}\text{N}$  HSQC spectrum of the free PD-L1 in solution with the assignment of the resonances reported in black. The spectrum was acquired on a spectrometer operating at 950 MHz ( $^1\text{H}$  Larmor frequency) and 298 K. (B, C) 2D  $^{15}\text{N}$   $^1\text{H}$  (H)NH CP spectrum of  $[\text{U}-^2\text{H}, ^{13}\text{C}, ^{15}\text{N}]$  PD-L1 in complex with the anti-PD-L1 mAb in blue (B) and of  $[\text{U}-^2\text{H}, ^{13}\text{C}, ^{15}\text{N}]$  PD-L1 in complex with the anti-PD-L1 mAb grafted onto gold nanoparticles in red (C). The assigned resonances are reported in black, the spectra were acquired on the rehydrated freeze-dried materials, using a spectrometer operating at 800 MHz ( $^1\text{H}$  Larmor frequency) with a MAS of 60 kHz and a temperature of  $\sim 290$  K.

Here, we show for the first time that epitope mapping, binding assessment, and high-order structure analysis of a full-length antibody-antigen complex grafted onto the surface of nanotheragnostics can be achieved by combining solution and SSNMR. The assignment of the free protein in solution was transferred to the SSNMR spectra

and was carried out the assignment of the protein in complex with the anti-PD-L1 monoclonal antibody (mAb), this latter was transferred to the SSNMR spectra of the nanotheragnostic agent and was confirmed by 3D SSNMR experiments (Figure 1).

The fingerprint left on the target protein in complex with the mAb (B) is the same obtained for the protein in complex with the mAb grafted onto gold nanoparticles. The chemical shift perturbation (CSP) analysis of the  $^1\text{H}/^{15}\text{N}$  resonances was calculated from the assignment of  $^1\text{H}$ -detected SSNMR spectra using the assignment of the isolated  $[\text{U}-^2\text{H}, ^{13}\text{C}, ^{15}\text{N}]$  PD-L1 obtained in solution as reference and the assignment of the protein in complex with the mAb conjugated to the gold nanoparticles, the obtained epitope mapping was completely in agreement with the one got for the complex PD-L1/mAb, proving the targeting of PD-L1 by the nanotheragnostic agent.

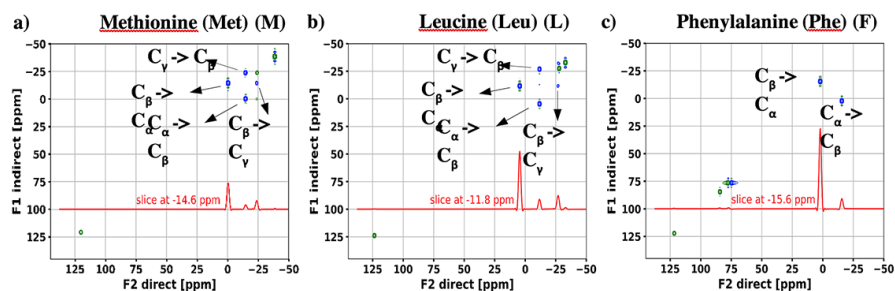
## Poster Prize: AMPERE Biological Solid-State NMR School 2025 Vinay Ganapathy

### Optimal control derived pulse sequences for mixing of homonuclear (CB-CA) spins – Applications in protein assignments

Vinay Ganapathy, Zdeněk Tošner

NMR Laboratory, Faculty of Science, Charles University, Prague, Czech Republic

Several developments in the multidimensional solid-state NMR spectroscopy have been achieved using optimal-control theory<sup>1,2</sup>. Recently, homonuclear transverse mixing optimal control pulses (hTROP) are designed for recoupling  $C_A \rightarrow C_O$  dipolar couplings under fast and ultrafast (20 kHz and 55 kHz) MAS rates to yield the protein backbone assignments<sup>3</sup>. In particular, transferring both x and y components of magnetization simultaneously between different nuclei yields sensitivity enhancement by a factor of 1.41 for every indirectly sampled domain, reducing thus significantly experimental time needed for multidimensional spectra.



**Figure 1:** Homonuclear  $^{2D} \text{ }^{13}\text{C}-^{13}\text{C}$  correlation spectra, depicting the effect of the hTROP mixing pulse is applied to the model system f-MLF using SIMPSON simulations. The pulse sequence is designed for 55 kHz MAS frequency and the length of the mixing pulse is 2 ms (110 rotor periods), while each rotor period consists of 12 pulses.  $^{2D}$  spectra were calculated assuming a) Methionine, b) Leucine and c) Phenylalanine carbons. In all the three amino acids, the magnetization transfer from  $C_{\beta}$  to  $C_{\alpha}$  is clearly facilitated. The experiments are tested using the f-MLF model.

In this study, we design the hTROP pulse sequences that extract chemical shifts of CB (beta carbon) as it provides a valuable information about the amino acid type. Following the previous developed strategy, the hTROP pulse sequences facilitates the  $C_{\beta} \rightarrow C_{\alpha}$  magnetization transfer and is based on recoupling of the dipolar interactions accounting for spatial RF inhomogeneities and considering the full  $C_{\beta}$  chemical shift spread for all amino acids. Our hTROP element has a duration of 2ms which is much shorter than the traditional J-coupling based approach with transfer times over 10 ms. In Figure 1 the hTROP pulse sequence is shown which is optimized for ultrafast (55kHz) spinning speeds. The sequence facilitates the  $C_{\beta} \rightarrow C_{\alpha}$  magnetization transfer and minimizes the magnetization leakage to the adjacent  $C_{\alpha}$  (carbonyl carbon). From SIMPSON simulations, it is calculated that around 35% of the  $C_{\beta}$  magnetization is transferred to the  $C_{\alpha}$  carbon.

References:

1. Blahut et.al., Solid State Nucl. Magn. Reson. 135 (2025) 101984.
2. Tošner et al., Sci. Adv. 2021; 75913.
3. Blahut et.al., J. Magn. Reson. Open 16-17 (2023) 100122.

## First announcement:

# ANNUAL INTERNATIONAL AMPERE NMR SCHOOL

Zakopane, Poland  
14-20 June 2026

<https://school.web.amu.edu.pl>

## ABOUT THE SCHOOL

The AMPERE Nuclear Magnetic Resonance School, is organized by the Adam Mickiewicz University in Poznań, as a subdivision of the Groupement AMPERE.

**AMPERE NMR School 2026** will take place in Zakopane, Poland, June 14-20, 2026.

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

The School moreover gathers prominent speakers in the field of Nuclear Magnetic Resonance from all over the world.

## TOPICS

- Solid state and soft matter NMR
- NMR diffusometry and relaxometry
- Application of NMR in biology and medicine
- Application of NMR material and environmental sciences
- Magnetic resonance imaging and spectroscopy
- NMR and quantum information
- Theoretical and experimental aspects of dynamic nuclear spin polarization
- Advanced NMR techniques

## IMPORTANT DATES

- Early registration - March 31, 2026
- Abstract submission (short communications) - March 31, 2026
- Abstract submission for poster presentations - May 22, 2026
- Regular registration deadline - May 31, 2026

## CONTACT

**Roksana Markiewicz**  
Adam Mickiewicz University,  
Poznań  
NanoBioMedical Centre

Wszecznicy Piastowskiej 3,  
61-614 Poznań, Poland

e-mail: [school@amu.edu.pl](mailto:school@amu.edu.pl)

## SCIENTIFIC COMMITTEE

- Bernhard Blümich, Germany
- Anja Böckmann, France
- Matthias Ernst, Switzerland
- Wiktor Koźmiński, Poland
- Danuta Kruk, Poland
- David Lurie, UK
- Giacomo Parigi, Italy
- Daniel Topgaard, Sweden
- Tomasz Zalewski, Poland

## Obituary:

### James (Jim) W. Emsley (1934-2026)



Malcolm H. Levitt<sup>a\*</sup>

\*Corresponding author.

Email address: mhl@soton.ac.uk

ORCID: 0000-0001-9878-1180

On the night of February 23, 2026, Professor James William Emsley, known to everyone as Jim, passed away. He was 91 years old.

Jim grew up in Leeds, a city in northern England. He had a modest background: his father was a machine engineer, and the family lived in a “terrace” house – a style in which houses are joined side-by-side in long rows, typical of working-class districts in northern England. As a youth he was a strong swimmer, and after joining the University of Leeds, he became a skilled player of water polo, representing the University team, and playing in a match between a combined English University team against its Scottish counterpart. A tour of the university swimming team led to him meeting Jenny, the lady who became his first wife, and the mother of his son Lyndon and daughter Julia. He liked to share fond memories of those days, late in his life.

He was first exposed to NMR in his final undergraduate year at Leeds, through a research project in the laboratory of J. A. S. (John) Smith, who had studied with the NMR pioneer Rex Richards in Oxford. John Smith had constructed a home-built NMR spectrometer in Leeds, with a <sup>1</sup>H frequency of 16 MHz. Jim’s project was on molecular motion in solids, such as frozen benzene, probed by wide-line solid-state NMR. In hindsight, this first exposure to NMR spectra dominated by the interplay of magnetic dipole-dipole interactions and molecular motion gave him an excellent grounding for the career that would follow.

Jim’s first postdoctoral position was with Les Sutcliffe in Liverpool, who had acquired a new commercial NMR spectrometer. It was there that he met Jim Feeney, completing

the triad of Emsley, Feeney and Sutcliffe. The trio founded the journal *Progress in Nuclear Magnetic Resonance Spectroscopy* in 1965, which Jim edited with legendary dedication and attention to detail for the next 50 years. The journal continues to carry forward his legacy, not least in the form of Jim’s last published article (at the age of 91), an authoritative review of molecular structure and ordering in liquid crystal phases[1]. In 1967, the trio published the seminal NMR textbook „High Resolution Nuclear Magnetic Resonance Spectroscopy”[2], which served as an essential fixture on the bookshelves of NMR scientists for many decades.



Left: Emsley, Feeney and Sutcliffe in 1960;



Right: Feeney, Sutcliffe and Emsley in 2015.

Jim’s next post was in Durham, where he researched on <sup>19</sup>F NMR[3]. It was in Durham that he first came across the 1963 paper by Saupe and Englert on the <sup>1</sup>H NMR spectrum of benzene in a liquid crystal solvent[4]. This paper would have a decisive influence. When he moved to the Department of Chemistry at the University of Southampton in 1967, and met another new recruit, Geoffrey Luckhurst, who had studied with the liquid crystal pioneer George Gray, the planets aligned. The pair would go on to co-author over 50 papers on the theory and NMR of anisotropic liquids.

During the following decades, Jim and Geoffrey established the University of Southampton as a leading centre for research in NMR, especially as applied to the study of liquid crystals. He had a wide range of productive collaborations, including several Italian NMR groups, including those led by Gianfranco Pedulli, Claudio Zannoni, Carlo Veracini (Veracio), and Marcello Longeri, as well as their co-workers, including Lodovico Lunazzi, Giorgio Celebre, Giuseppina De Luca, Marina Carravetta, Francesca Castiglioni, Giuseppe Pileio, and Maria Concistrè. Jim and Geoffrey’s consistent theme was the determination of the conformational distributions of flexible liquid crystal molecules by NMR, reaching towards an understanding of how the conformational distribution influences, and is influenced by, the formation of a liquid crystal phase. As just one example, in an important paper from 1980, Emsley and Luckhurst discussed the partial averaging of molecular properties by equilibrium statistical mechanics, and showed that the conformational distribution is determined by the intermolecular

potential, and not by the relative timescales of competing motional processes[5].

The use of anisotropic liquid phases has become an integral part of biomolecular structure determination by solution NMR[6]. Jim's work underpins this important research tool for structural biology.

Throughout the years, Jim remained a familiar and inspiring presence for those of us in Southampton, sharing his office with PhD and postgraduate students alike - always ready to offer his deep knowledge over cups of tea or in lively discussions at his desk. Many fondly recall his profound insights, which shaped their scientific careers and left a lasting impression. Giuseppe Pileio puts it well: "[For Jim], clarity was not only a discipline of work, but a natural quality of mind".

Jim was a great scientist, and also a kind and wise person, who retained his mental acuity, and his dry and gentle humour, to the end of his life.

Jim is greatly missed by his family, his colleagues in Southampton, his colleagues and friends in the NMR community, and many others besides.

Malcolm H. Levitt  
University of Southampton, UK  
25 March 2026

[1] J.W. Emsley, The structure and orientational order of molecules in nematic liquid crystal phases, *Progress in Nuclear Magnetic Resonance Spectroscopy* (2025) 101576.

[2] J.W. Emsley, J. Feeney, L.H. Sutcliffe, *High resolution nuclear magnetic resonance spectroscopy*, Pergamon Press, Oxford 1967.

[3] J.W. Emsley, L. Phillips, Fluorine chemical shifts, *Progress in Nuclear Magnetic Resonance Spectroscopy* 7 (1971) 1–520.

[4] A. Saupe, G. Englert, High-Resolution Nuclear Magnetic Resonance Spectra of Orientated Molecules, *Phys. Rev. Lett.* 11 (1963) 462–464.

[5] J.W. Emsley, G.R. Luckhurst, The effect of internal motion on the orientational order parameters for liquid crystalline systems, *Mol. Phys.* 41 (1980) 19–29.

[6] N. Tjandra, A. Bax, Direct Measurement of Distances and Angles in Biomolecules by NMR in a Dilute Liquid Crystalline Medium, *Science* 278 (1997) 1111–1114.

## Minutes of the meeting of the Ampere Bureau online, on March 11, 2026

### Members present (23):

A. Böckmann, B. Blümich, A. Lesage, B.H. Meier, B. Newling, D. Savchenko, G. Mollica, G. Otting, G. Karlson, J.-M. Bonny, M. Baldus, M. Schiavina, P. Giraudeau, P. Hilla, R. Markiewicz, S. Jannin, S. A. Campos, S. Haber, V. Behr, V.-V. Telkki, Y. Horbenko, M. Ernst, S. Hiller

### Excused:

K. Anderssen, G. Bodenhausen, L. Ciobanu, J. Dolinšek, J. v. Duynhoven, G. Jeschke, A. Kentgens, O. Millet, H. Oschkinat, Y.-Q. Song

### Agenda:

1. Approval of the agenda
2. Approval of the minutes of the AMPERE Bureau meeting Oulu on July 8, 2025
3. Report on the state of the AMPERE Society (A. Böckmann)
4. Financial Report (M. Ernst)
5. Report EUROMAR Division (A. Lesage)
6. Financial report EUROMAR division (M. Baldus)
7. Report Young Members
8. Report Publication Division (Magnetic Resonance) (G. Otting)
9. Report on AMPERE/Andrew prize and funds to support meetings (B. Blümich)
10. Preparation of Committee and Bureau elections (M. Ernst)
11. Final reports past meetings 2025:
  - AMPERE NMR School, Zakopane (Poland), June 8–14 (R. Markiewicz)
  - EUROMAR 2023, Oulu (Finland), July 6–10 (V.-V. Telkki)
  - ICMRM 2025, Würzburg (Germany), August 17–21 (L. Ciobanu)
  - EFEP School, Manchester (UK), August 31–September 6 (G. Jeschke)
  - Alpine Conference, Chamonix (France), September 14–18 (G. Mollica)
  - Biosolid School, Munich (Germany), October 19–24 (M. Ernst)
12. Future meetings 2026:
  - MR Food, Milano (Italy), June 9–12 (J.-M. Bonny)
  - AMPERE NMR School, Zakopane (Poland), June 14–20 (R. Markiewicz)
  - EUROMAR 2026, Gothenburg (Sweden), July 6–10 (G. Karlson)
  - XIIIth EFEP, Marseille (France), September 8–12 (G. Jeschke)
  - HYP26, Göttingen (Germany), September 6 – 10 (S. Jannin)
  - MRPM 2024, Tromsø (Norway), August 26–30 (Y.-Q. Song)

13. Varia
14. Date of next meeting

At 12:00 hours, Matthias Ernst opened the meeting. He welcomed and introduced all new members and guests.

Ad 1. The agenda was approved as is.

Ad 2. The minutes of the AMPERE Bureau were approved unanimously.

Ad 3.

The president A. Böckmann showed the AMPERE society tree. She then mourned society members that recently passed away: **Jean-Yves Lallemand**, member of the French Academy of Science. Jim Emsley, active in Southampton and founder of the community journal Progress in NMR Spectroscopy. **Hans-Martin Vieth**, emeritus from Freie University Berlin. He is well known for the development of major hyperpolarization techniques. **Philippe Derreumaux**, a CNRS researcher active in theoretical models. **Robert Schurko** from Florida State, who made a name for developing pulses. **Robert Shulman** from Yale and member of the US National Academy of Sciences. **Masatsune Kainosho**, emeritus from Tokio Metropolitan University. He was highly active in the community, such as by organizing ICMRBS conferences and developing advanced isotope labeling methods. **Liudvikas Kimtys**, from Vilnius University, who established the Lithuanian NMR science community. **James Feeney** from MRC London, co-founder of Progress in NMR Spectroscopy. **Jean-Nicolas Dumez**, research director at CNRS. **Edwin Becker**, a scientist at NIH and ISMAR fellow. **Ray Dupree** from Warwick University, who had operated a highly successful solid-state NMR group. **Sunney I. Chan** from CALTEC and Academia Sinica Taiwan, who had been combining EPR and NMR methods. **Arnaud Bondon** from Rennes University. **Alexander S. Arseniev** from the Russian Academy of Sciences. He took part in the fundamental developments of protein NMR structure determination. Furthermore, **Eunice Andrew**, the wife of late Raymond Andrew passed away on November 17, 2025. She and her husband have bestowed the AMPERE society with the prize money for the Andrew award. After a moment of silence, A. Böckmann highlighted the recent issue of the AMPERE bulletin. She welcomed the five new Young Ampere Members to the Bureau and highlighted the list of women in NMR, which is available online on the AMERE website. A. Böckmann acknowledged the successful conferences in the past year and highlighted the various upcoming conferences to be discussed later in the meeting.

Ad 4.

M. Ernst presented the financial report. Finances are continuing to be stable, and the slight increase in spendings on conferences and travel support has become visible. The financial situation of all subdivisions is stable and partially very positive.

Ad 5.

A. Lesage reported on the EUROMAR division. The conferences 2025–2027 are well under way. EUROMAR 2026 in Gothenborg, Sweden, is going well, with chair Gunnar Karlsson. The EUROMAR-ISMAR joint conference in 2027 will be held in Lyon (July 4-8), with chair Guido Pintacuda. The conference 2028 will be held in Vienna with chair Dennis Kurzbach and the conference 2029 with chair Mariana Sardo in Porto. For each of these countries, it is the first time to host the EUROMAR. As part of their activities, the EUROMAR committee has surveyed options for increased sustainability. A poll among past participants revealed unexpected insights. Participants attend the EUROMAR conference in order to network, present their research, and attend lectures, and these three motivations are about equally important. 18% of participants consider sustainability an important factor when planning the travel. As a consequence of these discussions, the EUROMAR decided to hold the conference every other year in a well-connected city, as well as to promote sustainability measures and give out sustainable travel stipends.

Ad 6.

M. Baldus reported on the finances of the EUROMAR division. Finances continue to be stable and very positive. The Bureau discusses alternative methods to distribute Tavel Awards.

Ad 7.

Sara Andrés-Campos presented the report from the Young Members committee. They have maintained a LinkedIn account and a Reddit account, as well as the Off-Resonance Webinar with roughly 60 participants. They plan to renew the youtube channel and strengthen Reddit and the webinar.

Ad 8.

G. Otting reported on the publication division. The journal Magnetic Resonance is listed in PubMed and Scopus. Scopus now calculated for the first time the Cite Score, a metric that is similar to impact factor. Interestingly, the Cite Score Magnetic Resonance of is slightly higher than J. Magn. Reson. and much higher than J. Magn. Reson. Open, despite the fact that there are few reviews in Magnetic Resonance.

Ad 9.

B. Blümich reported on the activities of the prize committee. For the Andrew Prize, there were 16 nominations, including 10 females. The prize committee established a change of policy such as that PIs should no longer nominate multiple candidates. The Andrew Prize 2026 goes to Konstantin Herb, who did his PhD in the group of C. Degen at ETH Zurich. The committee proposed financial support for 7 conferences. The Bureau discusses the financing of conferences and finally approved the proposal in its modified form.

Ad 10.

M. Ernst presented that for 9 members of the AMPERE committee, their term runs out by end of 2026. For 5 of them it is their first term and they will be asked whether they are available for election for a second term. The other 4 members end their second term and replacements are thus needed for 3 countries that have no other committee member. These are representatives from Israel, Norway and Ireland. Different nominees were proposed. M. Ernst will follow up and contact them. Furthermore, the terms of M. Ernst as secretary general and the term of Sebastian Hiller as Executive Secretary run out in 2026. The post of Secretary General must be filled by a person that lives in Switzerland. S. Hiller has volunteered as a candidate for this office. A candidate for the new Executive Secretary is Alvar Gossert from ETH Zurich. Furthermore, the prize committee needs to be renewed in 2026. M. Bennati is candidate as the new head of the prize committee. The Bureau acknowledges the contributions of all leaving members.

Ad 11.

Reports of past meetings in 2025:

- R. Markiewicz presented the AMPERE NMR School in Zakopane (Poland), which was held on June 8-14, 2025. It was the 32<sup>nd</sup> meeting, very successful with 23 lectures and 6 workshops.
- EUROMAR 2025 was presented by V. V. Telkki. It was held in Oulu in July 2025. The conference was very well received with a large audience. The conference made a large financial surplus.
- The ICMRM in Würzburg was presented by V. Behr. It featured 69 oral presentations and 33 posters, 126 participants. A full report has been published in the bulletin.
- The Alpine conference in Chamonix was reported by G. Mollica. It was held 14-18 September 2025 in Chamonix. A full report has been published in the bulletin.
- The biosolid school was held in October in Munich, organized by Bernd Reif. It was held at the University with around 35 participants and 15 teachers. The sponsorship had been increasingly difficult. The Bureau discussed new options for sponsorship engagement and also the role of Copernicus as a possible conference organizer. M. Ernst will call a separate meeting to exchange knowledge on these topics.

Ad 12.

Reports of planned meetings in 2026:

- R. Markiewicz presented the AMPERE NMR School in Zakopane (Poland), which will be held on June 8-14, 2026 in the Polish mountainside. There will be benchtop NMR on-site.
- Next MR FOOD was presented by J.-M. Bonny. It will be held on June 9-12, 2026, in Milano, Italy.
- G. Karlson presented the upcoming EUROMAR 2026 in Gothenburg. Everything is well set up, sponsors have committed.
- HYP 26 will be held in Göttingen, September 6–10, presented by S. Jannin on behalf

of C. Bodenhausen. Everything is in place, speakers are invited.

- The Magnetic Resonance in Porous Media (MRPM) Conference will be held October 26-29 October, 2026 in Riberirao Preto.

Ad 13. There were no topics under Varia.

Ad 14.

The upcoming AMPERE Committee and Bureau meetings will be held at EUROMAR in Gothenborg, in person. Bureau on June 30, Committee on July 1, at lunchtime. The envisaged date of the next spring meeting of the AMPERE Bureau: Wednesday, March 10, 2027 on Zoom at 12:00.

The meeting closed at 14:09.

Basel / the internet,

11 March 2026,

Minutes: Sebastian Hiller

## Finances of the Groupement AMPERE and Subdivisions

Period from March 1. 2025 to Feb 28. 2026

	Balance on March 1. 2025	Membership Fees / Registration Payments	Donations/ Conference support, Seedfunding paid back	Travelgrants/ Prizes and membership fees paid to Ampere	Conference Sponsoring Publishing Agreement MRPM	Conference Surplus / Licence fees Copernicus & reimb. taxes	Administrati on, Web Bureau Meetings / domains, credit card	Bank Charges / Depot Charges/ losses on Depot	Account Closing / Account carry over, withholding tax	Bank Interests Account carry over, Dividends	Gains on Value Paper withholding tax	Balance on Feb. 28. 2026
<b>Groupement Ampere</b>												
Ampere (CHF)	27'371.80						773.40	45.50	1'380.75			25'172.15
Ampere (Euro)	73'603.47	13'928.26	1'500.00	7'700.00	14'591.86	1'256.06	154.20	185.54		239.00		67'895.19
Andrew (CHF)	17'798.42			1'521.95				407.90		26.85	853.37	16'748.79
Andrew Depot (CHF)	95'012.31										4'030.76	99'043.07
<b>Subdivisions</b>												
Biol. Solid State (Euro)	13'468.36						88.67	42.38				13'337.31
EPR (CHF)	4'589.00						20.00			6.85		4'575.85
Food NMR (CHF)	4'365.04		1'380.75							6.55		5'752.34
MRPM (CHF)	20'933.22									31.35		20'964.57
SMRM (CHF)	62'475.44						37.28	26.00		43.70		62'455.86
Hyp (CHF)	4'177.05									6.25		4'183.30
Publication Div. (Euro)	5'476.63							98.88				5'377.75
<b>Euromar</b>												
Euromar (Euro)	168'821.19		15'000.00	22'500.00		1'707.38	251.48	111.86				162'665.23

## 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.

### President

Anja Böckmann, CNRS/University of Lyon, France  
anja.boeckmann@ibcp.fr

### Vice President

Óscar Millet, CIC bioGune  
omillet@cicbiogune.es

### Vice President

Patrick Giraudeau, Université de Nantes  
patrick.giraudeau@univ-nantes.fr

### Secretary General

Matthias Ernst, ETH Zurich, Switzerland,  
maer@nmr.phys.chem.ethz.ch

### Executive Secretary

Sebastian Hiller, University of Basel, Switzerland  
sebastian.hiller@unibas.ch

### Young Members

Darya Svachenko, Institute of Physics of the CAS, Czech Republic, dariyasvachenko@gmail.com  
Sara N. Andres, McMaster University, Canada, andressn@mcmaster.ca  
Shira Haber, Ben-Gurion University, Israel, habersh@post.bgu.ac.il  
Perttu Hilla, University of Oulu, Finland, perttu.hilla@oulu.fi  
Yuliia Horbenko, University of Nantes, France, yuliia.horbenko@univ-nantes.fr  
Marco Schiavina, University of Florence, Italy, marco.schiavina@unifi.it

### EF-EPR

Gunnar Jeschke, ETH Zurich, Switzerland  
gieschke@ethz.ch

### SRMR

Luisa Ciobanu, CEA/Neurospin, France  
luisa.ciobanu@gmail.com

### MRPM

Yi-Qiao Song, Schlumberger-Doll Research, USA  
ysong@slb.com

### MR-Food

Jean-Marie Bonny, French National Institute for Agriculture, Food, and Environment, France  
jean-marie.bonny@inra.fr

### Hyperpolarisation

Geoffrey Bodenhausen, ENS, France,  
geoffrey.bodenhausen@ens.fr

### Publication Division

Gottfried Otting, Australian National University, Australia  
gottfried.otting@anu.edu.au

### Biological Solid State NMR

Hartmut Oschkinat, Leibniz Forschungsinstitut für Molekulare Pharmakologie, Germany  
oschkinat@fmp-berlin.de

### AMPERE NMR School

Roksana Markiewicz, Adam Mickiewicz University, Poland

### Euromar

Anne Lesage, Centre National de la Recherche Scientifique (CNRS), France  
anne.lesage@ens-lyon.fr

### Euromar Treasurer

Marc Baldus, Utrecht University, The Netherlands  
m.baldus@uu.nl

### Past President

Bernhard Blümich, RWTH Aachen University, Germany  
bluemich@itmc.rwth-aachen.de

### Honorary member

Beat Meier, ETH Zürich, Switzerland  
beme@nmr.phys.chem.ethz.ch

## AMPERE Committee

**Diana Bernin** (2025-2029) Chalmers University of Technology, Sweden

**Melanie Britton** (2024-2028) University of Birmingham, United Kingdom

**Peter Crowley** (2018-2026) National University of Ireland, Ireland

**Ana Maria Pissarra Coelho Gil** (2018-2026) University of Aveiro, Portugal

**Meghan Halse** (2022-2026) University of York, United Kingdom

**Klaartje Houben** (2021-2025) DSM, Delft, The Netherlands

**Kristaps Jaudzems** (2019-2027) University of Latvia, Latvia

**Anu Kantola** (2024-2028) University of Oulu, Finland

**Vytautas Klimavičius** (2021-2025) Vilnius University, Lithuania

**Igor Komarov** (2022-2026) Taras Shevchenko National University of Kyiv, Ukraine

**Magdalena Kowalska** (2025-2029) CERN, University of Geneva, Switzerland

**Dennis Kurzbach** (2022-2026) University of Vienna, Austria

**Jose Martins** (2021-2025) Ghent University, Belgium

**Jörg Matysik** (2021 - 2025) University Leipzig, Germany

**Emmanuel Mikros** (2025-2029) University of Athens, Greece

**Óscar Millet** (2024-2028) CIC bioGUNE, Spain

**Giulia Mollica** (2021-2025) ICR, Aix Marseille University, France

**Predag Novak** (2019-2027) University of Zagreb, Croatia

**Giacomo Parigi** (2021-2025) University of Florence, Italy

**Annalisa Pastore** (2021-2025) King's College London, England

**Roberta Pieratelli** (2024-2028) University of Florence, Italy

**Janez Plavec** (2024-2028) Slovenian NMR Centre, Slovenia

**Ann-Christin Pöpller** (2024-2028) University of Würzburg, Germany

**Indrek Reile** (2019-2027) National Institute of Chemical Physics and Biophysics, Estonia

**Frode Rise** (2018-2026) University of Oslo, Norway

**Sharon Ruthstein** (2018-2026) Bar-Ilan University, Israel

**Mariana Isabel Coutinho Sardo** (2021-2025) University of Aveiro, Portugal

**Paul Schanda** (2021-2025) The Institute of Science and Technology, Austria

**Lukáš Trantířek** (2021-2025) CEITEC - Central European Institute of Technology, Czech Republic

**Patrick van der Wel** (2022-2026) University of Groningen, The Netherlands

**Paul Vasos** (2019-2027) Horia Hulubei Institute for Nuclear Physics (IFIN-HH), Romania

**Thomas Vosegaard** (2022-2026) Aarhus University, Denmark

**Anna Zawadzka-Kazimierczuk** (2024-2028) University of Warsaw, Poland

## Honorary members

**Hans Wolfgang Spiess**, Max Planck Institute for Polymer Research, Germany

**Kurt Wüthrich**, ETH Zürich, Switzerland

## Prize Committee

**President: Bernhard Blümich**, RWTH Aachen University, Germany

**Members:**

**Mark E. Smith**, University of Southampton, England

**Annalisa Pastore**, King's College London, England

**Alexej Jerschow**, New York University, USA

**Enrica Bordignon**, University of Geneva, Switzerland

**Hartmut Oschkinat**, FMP Berlin, Germany

## Future conferences

### Ampere Event 2026

MRFOOD 2026	Milano, Italy	June 9-12
AMPERE NMR School 2026	Zakopane, Poland	June 14-20
Euromar 2026	Gothenburg, Sweden	June 28 to July 2
XIII EFEPR Conference	Brno, Czech Republic	Aug. 29 to Sept. 3
HYP 26	Göttingen, Germany	September 6-10
MRPM 2026	Ribeirão Preto, Brazil	October 26-29

### Other Events 2026

GRC Magnetic Resonance and Quantum Information Science	Hockstett, US	June 14-19
FGMR Annual Discussion Meeting	Mainz, Germany	September 13-17
Spin Chemistry Meeting	Padova, Italy	September 20-24

### Ampere Event 2027

Alpine Conference on Magnetic Resonance in Solids	Chamonix, France	September 12-16
---	------------------	-----------------



Groupement  
**AMPERE**

[www.ampere-society.org](http://www.ampere-society.org)