



THE ON-LINE EXPERIENCE | 7- 8 DECEMBER 2020

12:00-15:30 UTC-GMT | Coordinated Universal Time



ORGANIZED BY:



GENERAL INFORMATION

The meeting will take place on-line, using the zoom platform. Attendance is free of charge but **requires registration** at:

<http://ow.ly/tWRo50Cq3Gs>

After registration, the attendee will receive an acknowledgement e-mail which will contain a link to one of the conference rooms, but it won't be operational yet. Before the meeting starts, all the links to the conference rooms will be sent to all the registered e-mail addresses. Please notice that the indicated times are mainly in Greenwich Meridian Time (GMT). Registration is mandatory for all attendees, including flash presenters.

Legend: GMT, Greenwich Meridian Time; CET, Central European Standard Time, EST, Eastern Standard Time, CST, China Standard Time.

OVERVIEW

Dec 7 2020	
GMT	
12:00	INTRODUCTION
12:05	Richard Ernst Prize
End: 12:45	
Start: 12:50	Biomolecular 1
End: 13:55	Hyperpolarization
Start: 14:00	Raymond Andrew Prize
End: 14:30	
Start: 14:35	Solution State Methods
End: 15:15	EPR/ESR / F-NMR

Dec 8 2020	
GMT	
12:00	INTRODUCTION
Start: 12:05	AMPERE Prize
End: 12:45	
Start: 12:50	Small Molecule / Metabolomics / Computation
End: 13:55	Materials / ssNMR applications
Start: 14:00	Varian Young Investigator Award
End: 14:30	
Start: 14:35	PRESENTATION EUROMAR 2021
End: 14:40	
Start: 14:45	Biomolecular 2
End: 15:35	ssNMR methods / Instrumentation

PROGRAM

December 7

Common session (Room 1)

12:00 GMT (13:00 CET/7:00 EST/20:00 CST) Introduction. *Thomas Prisner, Bernhard Bluemich and Oscar Millet.*

12:05 GMT Richard Ernst Prize Lecture Introduction. *Lucia Banci.*

12:10 GMT Richard Ernst Prize Lecture by Clare Gray (Cambridge University).

Parallel sessions

Room 1: Biomolecular NMR 1. *Miquel Pons and Jesús Jiménez-Barbero*

12:50 GMT (13:50 CET/7:50 EST/20:50 CST) - 13:55 GMT (14:55 CET/8:55 EST/21:55 CST)

- 12:50 GMT [Rebecca B. Berlow](#), [The Scripps Research Institute](#).
The role of backbone dynamics in modulating competition between disordered ligands.
- 12:55 GMT [Lauriane Lecoq](#), [University of Lyon](#).
Solution and solid-state NMR to study viral assemblies in Hepatitis B and dengue viruses.
- 13:00 GMT [Joachim Maier](#), [Max Planck Institute - Göttingen](#).
Dissecting artificially reconstituted immune pre-signaling clusters to study biocondensation.
- 13:05 GMT [Borja Mateos](#), [CIC bioGUNE](#).
The initial protein oligomeric state dictates the effect of small cosolutes on the oligomerization reaction.
- 13:10 GMT [Beat Vögeli](#), [University of Colorado](#).
Reducing the Measurement Time of Exact NOEs by Non-Uniform Sampling.
- 13:15 GMT [Tatjana Schamber](#), [Goethe University](#).
3_SL2 SARS-CoV-2 RNA secondary structure determination by NMR spectroscopy.
- 13:20 GMT [Tiago Gomes](#), [IRB - Barcelona](#).
Into the structure of human full-length smad proteins.
- 13:25 -13:55 GMT Q & A for the session.

Room 2: Hyperpolarization. [Arno Kentgens](#) and [Thomas Prisner](#)

12:50 GMT (13:50 CET/7:50 EST/20:50 CST) - 13:55 GMT (14:55 CET/8:55 EST/21:55 CST)

- 12:50 GMT [Behdad Aghelnejad](#), [École Normal Supérieure - Paris](#).
Progress and future plans concerning bullet-DNP.
- 12:55 GMT [James Eills](#), [Johannes Gutenberg University](#).
Metabolic NMR without the magnet.
- 13:00 GMT [Michael A. Hope](#), [École Polytechnique Fédérale de Lausanne](#).
A magic angle spinning activated ¹⁷O DNP raser.
- 13:05 GMT [Oleg G. Salnikov](#), [Boreskov Institute of Catalysis](#).
Hyperpolarization of ¹⁵N nuclei in nimorazole using signal amplification by reversible exchange at microtesla magnetic fields.
- 13:10 GMT [Saket Patel](#), [Technical University of Denmark](#).
UV-irradiated 2-keto-(1-¹³C)isocaproic acid for high performance ¹³C hyperpolarized MR.
- 13:15 GMT [Kong Ooi Tan](#), [Massachusetts Institute of Technology](#).
Shedding light on nuclei near the spin diffusion barrier via electron decoupling.
- 13:20 GMT [Théo El Daraï](#), [University of Lyon](#).
Increasing hyperpolarization lifetime in arbitrary frozen solutions with hyperpolarizing polymers (HYPOP).
- 13:25 -13:55 GMT Q & A for the session.

Common session (Room 1)

14:00 GMT (15:00 CET/9:00 EST/22:00 CST) Raymond Andrew Prize Introduction. *Anja Böckmann.*

14:05 GMT Raymond Andrew Prize Lecture by Christian Bengs (University of Southampton)

Parallel sessions

Room 1: Solution State Methodology. *Miquel Pons and Oscar Millet*

14:35 GMT (15:35 CET/9:35 EST/22:35 CST) - 15:15 GMT (16:15 CET/10:15 EST/23:15 CST)

14:35 GMT [Mohamed Sabba, University of Southampton.](#)

Generalized transformation of magnetisation into ultra-longlived eigenorder.

14:40 GMT [Xun-Cheng Su, Nankai University.](#)

Dynamic exchange of metal chelating moiety: a key factor in determining the rigidity of protein-tag conjugate in paramagnetic NMR.

14:45 GMT [Krzysztof Kazimierzczuk, University of Warsaw.](#)

Temperature and concentration as extra dimensions in multidimensional NMR.

14:50 GMT [Yamanappa Hunashal, Università di Udine.](#)

Mapping slow and intermediate exchange from structural interconversion or intermolecular interaction in protein NMR spectra.

14:55 -15:15 GMT Q & A for the session.

Room 2: EPR/ESR & F-NMR. *Inés García and Thomas Prisner*

14:35 GMT (15:35 CET/9:35 EST/22:35 CST) - 15:15 GMT (16:15 CET/10:15 EST/23:15 CST)

14:35 GMT [Yuri Kutin, TU Dortmund University.](#)

Duplex-bridged unimolecular DNA G-quadruplexes: an EPR investigation.

14:40 GMT [Shannon Helsper, Florida State University.](#)

Differential hemispherical assessment using multinuclear MR reveals effects of stem cell variance in stroke treatment.

14:45 GMT [Andreas Meyer, Max Planck Institute - Göttingen.](#)

High Field ¹⁹F-ENDOR for Distance Measurements in the Angstrom to Nanometer Regime in Structural Biology.

14:50 GMT [Arnau Bertran, University of Oxford.](#)

Light-induced triplet-triplet electron resonance spectroscopy.

14:55 -15:15 GMT Q & A for the session.

December 8

Common session (Room 1)

12:00 GMT (13:00 CET/7:00 EST/20:00 CST) Introduction. *Beat Meier.*

12:05 GMT AMPERE Prize Lecture by Thomas Theis (North Carolina State University).

Parallel sessions

Room 1: Small Mol. / Metabolomics / Computation. *Christina Thiele and Andrew Webb*

12:50 GMT (13:50 CET/7:50 EST/20:50 CST) - 13:55 GMT (14:55 CET/8:55 EST/21:55 CST)

12:50 GMT [Juan Carlos Fuentes-Monteverde](#), Max Planck Institute - Göttingen.

Relative configuration of micrograms of natural compounds using proton residual chemical shift anisotropy.

12:55 GMT [Ganeko Bernardo-Seisdedos](#), CIC bioGUNE.

Metabolic landscape of the mouse liver by quantitative ³¹P-NMR analysis of the phosphorome.

13:00 GMT [Gyula Pálfi](#), Eötvös Loránd University.

Dynamics plays essential role in drug development against oncogenic K-Ras proteins.

13:05 GMT [Arobendo Mondal](#), Technische Universität München.

Prediction of chemical shifts of 90k antamanide snapshots using machine learning at near experimental accuracy.

13:10 GMT [Jacob R. Lindale](#), Duke University.

Exact Lindblad master equations for chemical exchange.

13:15 GMT [Arnab Dey](#), Université de Nantes.

Hyperpolarized NMR metabolomics at natural ¹³C abundance.

13:20 GMT [Manman Lu](#), University of Delaware.

Atomic-resolution structure of HIV-1 capsid tubes by magic-angle spinning NMR.

13:25 -13:55 GMT Q & A for the session.

Room 2: Materials & ssNMR Applications. *Thomas Voosegard and Antoine Loquet*

12:50 GMT (13:50 CET/7:50 EST/20:50 CST) - 13:55 GMT (14:55 CET/8:55 EST/21:55 CST)

12:50 GMT [Alons Lends](#), Université de Bordeaux.

Capsule and surface organization of cryptococcus neoformans cells in their intact form revealed by ¹H detected solid-state NMR at fast MAS regime.

12:55 GMT [Amrit Venkatesh](#), Iowa State University.

Accelerating wide-line ¹⁹⁵Pt solid-state NMR with fast MAS and dynamic nuclear polarization: application to single-site heterogeneous catalysts.

13:00 GMT [Dominik J. Kubicki](#), University of Cambridge.

Local structure and dynamics in multicomponent tin halide perovskites from Tin-119 solid-state NMR.

13:05 GMT [Pinelopi Moutzouri](#), École Polytechnique Fédérale de Lausanne.

Elucidation of the atomic-level structure of cementitious calcium aluminate silicate hydrate by DNP mas NMR.

13:10 GMT [Scholzen Pascal](#), ESPCI - Paris.

Ferromagnetic NMR for the study of cobalt nanowires and nanoparticle assemblies.

13:15 GMT [Thomas Meier](#), University of Bayreuth.

Nuclear spin crossover in dense molecular hydrogen.

13:20 GMT [Monu Kaushik](#), University of Lyon.

Structural characterization of ultra-thin aluminum oxide layers supported on silica by DNP enhanced solid-state NMR spectroscopy

13:25 -13:55 GMT Q & A for the session.

Common session (Room 1)

14:00 GMT (15:00 CET/9:00 EST/22:00 CST) Varian Young Investigator Award Introduction.

Bernhard Brutscher

14:05 GMT Varian Young Investigator Award Lecture by Paul Schanda (IBS - Grenoble).

14:35 GMT (15:35 CET/9:35 EST/22:35 CST) Presentation of EUROMAR 2021.

Janez Plavec and Thomas Prisner.

Parallel sessions

Room 1: Biomolecular NMR 2. *Jesús Jiménez-Barbero and Oscar Millet*

14:45 GMT (15:45 CET/9:45 EST/22:45 CST) - 15:25 GMT (16:25 CET/10:25 EST/23:25 CST)

14:45 GMT [Ana Ardá, CIC bioGUNE.](#)

NMR structural characterization of the n-linked glycans in the receptor binding domain of the SARS-CoV-2 spike protein and their interactions with human lectins.

14:50 GMT [Manon Julien, CNRS - Gif-sur-Yvette.](#)

Monitoring phosphorylations in the disordered region of BRCA2 and identifying their impact on binding to partners.

14:55 GMT [Hans Koss, Columbia University.](#)

Cadherin-11 dimerization multi-site kinetics: combined partial unfolding and strand-swapping.

15:00 GMT [Carlos Lima, Universidade Nova de Lisboa.](#)

Deciphering the structural features of LacdiNAc recognition by lectins of immune system using NMR spectroscopy.

15:05 -15:25 GMT Q & A for the session.

Room 2: ssNMR Methods & Instrumentation. *Andrew Webb and Arno Kentgens*

14:45 GMT (15:45 CET/9:45 EST/22:45 CST) - 15:25 GMT (16:25 CET/10:25 EST/23:25 CST)

14:45 GMT [Nergiz Sahin Solmaz, École Polytechnique Fédérale de Lausanne.](#)

The single-chip dynamic nuclear polarization microsystem.

14:50 GMT [Bruno Simões de Almeida, École Polytechnique Fédérale de Lausanne.](#)

Fast remote correlation experiments for ^1H homonuclear decoupling in solids.

14:55 GMT [Rodrigo De Oliveira-Silva, KU Leuven.](#)

NMR relaxorpton: a bimodal instrumentation for simultaneous sorption / NMR detection of vapors inside microporous materials.

15:00 GMT [Kathrin Aebischer, ETH Zürich.](#)

Using B1-field selective pulses to improve FSLG-decoupled spectra.

15:05 -15:25 GMT Q & A for the session.