

SUNDAY, AUGUST 4, 2024

Pre-Conference Activities	
8:00 AM - 12:30	NMR Solid-State Workshop
4:30 PM - 6:00 PM	Poster Mixer
<i>Chair: Rachel Martin</i>	
7:00 PM	TBA, Lynnete Cegelski, Stanford University
7:20 PM	Using NMR to Deconstruct Melanin Virulence in a Fungal Macromolecular Composite. Ruth E. Stark , CUNY City College of New York
7:40 PM	Magnetically Aligned Peptoid Macrodiscs and (15N, 13C, 1H) Triple-resonance Experiments for Structure Determination and Spectroscopic Assignment of Membrane Proteins. Alexander A. Nevzorov , North Carolina State University
8:10 PM	SHALL WE PLAY A GAME? Monte Carlo Simulations of Structure Selection and Refinement in NMR Crystallography. Leonard J. Mueller , University of California - Riverside
8:40 PM	Trials & Tribulations of Tin-containing Metal Halide Perovskite Materials. Vladimir K. Michaelis , University of Alberta

MONDAY, AUGUST 5, 2024

<i>Bjorn Corzilius</i>	
8:00 AM	¹⁹ F-Enhanced Solid-State NMR for Structure Determination of Viral Membrane Proteins, Mei Hong , Massachusetts Institute of Technology
8:30 AM	Unraveling the Dynamics and Residual Structure of the Flexible Domains of α -Synuclein Fibrils and Monomers. Sayuri Pacheco , Keck School of Medicine of USC
8:50 AM	Magnetic Susceptibility Modeling of Magic-Angle Spinning Modules for Part Per Billion Scale Field Homogeneity. Jasmin SchöNZart , Colorado School of Mines and PhoenixNMR, LLC
9:10 AM	Structure and Packing in Complex Polymer Materials. Ulrich Scheler , Leibniz-Institut für Polymerforschung Dresden e.V.
9:30 AM	Break
10:00 AM	Advances in NMR and Magnetometry to Probe the Structure and Redox Properties of Battery Cathodes. Raphaële Clément , University of California Santa Barbara
10:30 AM	Using EPR (with NV-diamonds) for Nano- and Microscale NMR Spectroscopy. D. B. Bucher , Technical University of Munich
10:50 AM	NMRduino: A Modular, Open-Source Platform for Low-Field NMR Research and Education, Sven Bodenstedt , ICFO - The Institute of Photonic Sciences
11:10 AM	Results and a Pathway Towards Widely Available Pulsed DNP and NMR at 100 Tesla, Alexander B. Barnes , ETH Zurich
12:00 PM	Lunch (included with registration)
<i>Galia Debelouchina</i>	
1:00 PM	TBA, Chris Jaroniec, The Ohio State University
1:30 PM	Characterizing the Dynamics of the Small Heat Shock Protein HSPB1 in the Presence of a Phase-separated Protein Client. Alexander P. Plonski , University of California, San Diego
1:50 PM	Molecular Dynamics of Proline Derivatives as Possible Source for Site Specificity by DNP. Florian Taube , University of Rostock
2:10 PM	Structural Characterization of Surface Immobilized Platinum Hydrides by Sensitivity-Enhanced ¹⁹⁵ Pt Solid State NMR Spectroscopy and DFT Calculations. Benjamin A. Atterberry , Iowa State University
2:30 PM	¹⁷ O Isotopic Labeling Using Mechanochemistry: Applications to Biomaterials. D. Laurencin , CNRS
3:00 PM	Break
<i>Rachel Martin</i>	
3:30 PM	Zero-Field Nuclear Quadrupole Resonance to Ultrahigh-Field Nuclear Magnetic Resonance (and Everything in Between) Characterization of Non-Covalent Interactions in Solids. David L. Bryce , University of Ottawa
4:00 PM	Orientation-Dependent NMR Studies of Charge Orders in Kagome Lattices. Xiaoling Wang , California State University East Bay
4:20 PM	Multinuclear Solid-State NMR Studies of Plasmonic Semiconducting Nanocrystals. Robert B. Smith , Florida State University
4:40 PM	Magic-Angle Spinning Insert for Solid-State Nuclear Magnetic Resonance using Solution-State Probes. N. Alaniva , ETH-Zürich
5:00 PM	Diamond Rotors. Robert G. Griffin , MIT

5:30-7:00 PM	Conference Reception (included with registration)
Posters	
7:00-9:30 PM	Authors Present for Posters Labeled A

TUESDAY, AUGUST 6, 2024

Joint Session - EPR & SSNMR - EPR CoChair: Songi Han and SSNMR CoChair: Joanna Long	
8:00 AM	Plenary and IES Award: Christiane Timmel, University of Oxford
8:50 AM	MAS NMR of Amorphous Calcium Carbonate Provides Proof for the Pre-nucleation Cluster Pathway. Guinevere Mathies , Leibniz Universität Hannover
9:20 AM	High Precision Quantum Sensing with EPR Relaxometry in Flowing Microdroplets. Ashok Ajoy , University of California Berkeley
9:40 AM	Optimal Control DNP Experiments. Niels C. Nielsen , Aarhus University
10:00 AM	Break
Joint Session - EPR & SSNMR - EPR CoChair: Songi Han and SSNMR CoChair: Joanna Long	
10:20 AM	TBA - Marina Bennatti, University of Goettingen
10:50 AM	Controlling Properties of High Surface Area Functional Materials. Daniel Lee , The University of Manchester and Université Grenoble Alpes
11:20 AM	High-Field Magic Angle Spinning EPR Spectroscopy. Iliia Kaminker , Tel-Aviv University
11:40 AM	Coherent Dynamic Nuclear Polarization at 94 GHz. Yifan Quan , Massachusetts Institute of Technology
12:00 PM	Lunch (included with registration)
Vaughan Lecture - Chair: Christian Bonhomme	
1:30 PM	TBA - Anne Lesage, Université de Lyon
2:20 PM	From Surface Site Structures to Reactivity Descriptors using Solid-State NMR, Christophe Copéret , ETH Zurich
3:20 PM	Break
Vaughan Lecture - Chair: Christian Bonhomme	
4:00 PM	Paramagnetic Metal Ions DNP: Mechanisms and Applications in Inorganic Solids, Michal Leskes , Weizmann Institute
4:45 PM	Expanding the Tool Box for Structural Biology: 19F Dynamic Nuclear Polarization for Protein Assemblies and Proteins in Cellular Environments. Tatyana Polenova , University of Delaware
Posters	
7:00-9:30 PM	Authors Present for Posters Labeled B

WENESDAY, AUGUST 7, 2024

Ulla Gro Nielsen	
8:00 AM	Ultrafast Laplace NMR to Study Fluid Dynamics in Soft and Solid Materials, Ville-Veikko Telkki , University of Oulu
8:30 AM	Understanding Structure & Dynamics in Anti-Perovskite Solid Electrolytes. George E. Rudman , Durham University and Newcastle University
8:50 AM	Direct Access to Ultralow Li⁺ Jump Rates in Single Crystalline Li₃N by Evolution-Time-Resolved ⁷Li Spin-Alignment Echo NMR. H. Martin R. Wilkening, Graz University of Technology
9:10 AM	Intrinsic Disorder in Amyloid Fibrils: A Combined NMR, EPR, and MD Approach. Ansgar B. Siemer , University of Southern California
9:30 PM	Break
Galia Debelouchina	
10:00 AM	TBA - Francesca Marassi, Medical College of Wisconsin
10:30 AM	Experimentally Varying the Relative Importance of Dipolar Coupling Versus Perturbations for the Study of Decoherence in Quantum Dynamics. Ana K. Chattah , FAMAF-UNC and IFEG-CONICET (AR)
10:50 AM	The Impact of Microwave Phase Noise on Optically Detected Magnetic Resonance Spectroscopy with Diamond NV Centers. Andris Berzins , CHTM of University of New Mexico
11:10 AM	Band-by-band Contributions to Chemical Shielding: Towards Understanding the Anomalous Trends in 3-5 Semiconductors. Josef W. Zwanziger , Dalhousie University
12:00 PM	Lunch (included with registration)
Amir Goldbourn	

1:00 PM	New Recoupling Techniques for Non-ideal Membrane Protein Samples. Loren B. Andreas , Max Planck Institute
1:30 PM	Nitroxide Biradicals for Targeting Lipid Rafts by DNP-NMR. Ancy T. Wilson , University of Iceland
1:50 PM	Polarization Transfer in Metal-ion DNP: Spin Diffusion vs. Direct Polarization. Ilia B. Moroz , Weizmann Institute of Science
2:10 PM	Solid-State NMR Spectroscopy of Low-Gyromagnetic Ratio Half-Integer Quadrupolar Nuclei using Indirect Detection and High Magnetic Fields. Amrit Venkatesh , National High Magnetic Field Laboratory, Florida State University
3:00 PM	<i>Break</i>
<i>Pierre Florian</i>	
3:30 PM	Automatic Fitting of Multi-Field Solid-State NMR Spectra. Frédéric A. Perras , Ames National Laboratory
4:00 PM	Enhancing Room Temperature MAS-DNP with BDPA-Coated HPHT Diamond. Celeste Tobar , Northwestern University
4:20 PM	The Design and Implementation of a DNP-NQR Spectrometer. Adam R. Altenhof , Los Alamos National Laboratory
4:40 PM	Elucidating Lithium-ion Surface Adsorption on Electrode Materials using ^7Li Dark-State Exchange Saturation Transfer NMR Spectroscopy. Shakked Schwartz , Weizmann Institute of Science
5:00 PM	Comparison of Infectious and Non-infectious Prions by MAS NMR. Kurt W. Zilm , Yale University
7:00-9:00 PM	Conference Banquet & Awards Ceremony (Enjoy an evening of comradeship, fine food and recognition of peers. Pre-registration required.) Speaker – Thomas Prisner

THURSDAY, AUGUST 8, 2024

<i>Ulla Gro Nielsen</i>	
8:00 AM	Assignment Procedures and Difference Spectroscopy for Low Complexity Protein Domain Assemblies, Dylan T. Murray , University of Connecticut
8:30 AM	Observation of ^1H-^1H J-Couplings in Fast MAS Solid-State NMR. Daria Torodij , EPFL
8:50 AM	Low-Temperature DNP-Enhanced Solid-State NMR Spectroscopy Applied to Liquid-Liquid Phase Separation of the FUS Low-Complexity Domain. C. Blake Wilson , National Institutes of Health
9:10 AM	Lipid Regulation of GPCR dynamics and Ligand-Receptor Association. Benjamin J. Wylie , Texas Tech University
9:30 PM	<i>Break</i>
10:00 AM	A Fused Way to Probes and Parts for NMR. Jörn Schmedt auf der Günne , Siegen University
10:30 AM	Following the Transient Reactions in Lithium-Sulfur Batteries Using a Combination of Operando Solid-State ^7Li and ^{33}S NMR Spectroscopy. Jana B. Fritzke , University of Cambridge
10:50 AM	CLASSIC NMR Spectroscopy to Investigate the ADOR Process. Nicole L. Kelly , University of St Andrews
11:10 AM	Resolving Structures of Paramagnetic Systems in Chemistry and Materials Science by Ultra-fast Solid-state MAS NMR. Jonas Koppe, CRMN (CNRS / ENS Lyon / UCB Lyon)