

## SUNDAY, AUGUST 4, 2024

### Pre-Conference Activities

#### Session Chair: Songí Han

1:00:00 PM - 3:30 PM	EPR Educational: Hyperfine Spectroscopy and ODMR
3:30 PM	ACERT Outreach
4:30 - 6:00 PM	Poster Mixer
7:00 PM - 10:00 PM	Bruker EPR Users Meeting

## MONDAY, AUGUST 5, 2024

### Photoexcited EPR - Chair: Petr Neugebauer

8:00 AM	In Memoriam: Josef Michl
8:30 AM	<b>Photogeneration of a Spin-Polarized Qudit in a Vanadyl(II) - Free Base Porphyrin Dimer</b> . <a href="#">Alberto Privitera</a> , Northwestern University and University of Florence
8:50 AM	<b>Light-Induced Spin-Correlated Radical Pairs in Quantum Dot-Organic Molecule Systems</b> . <a href="#">Jens Niklas</a> , Argonne National Laboratory
9:10 AM	<b>Spin and Optical Response of Pentacene-radical Dyads in the Strong and Weak Coupling Regime</b> . <a href="#">Claudia E. Avalos</a> , New York University
9:30 AM	Break

### EPR Imaging - Chair: Mrignayani Kotecha

10:00 AM	TBA: Martyna Elas, University Jagiellonian University in Kraków
10:30 AM	<b>Tumor Oxygenation Dynamics in Murine Orthotopic Pancreatic Cancer: Insights from in vivo Multimodal Therapy</b> . <a href="#">Martyna Krzykawska-Serda</a> , Jagiellonian University
10:50 AM	<b>Determining Red Blood Cell Health and Quality by Measuring Superoxide</b> , <a href="#">Eric A. Legenzov</a> , University of Maryland School of Medicine
11:10 AM	<b>Synthesis and Characterization of Triarylmethyl Radical Spin Probes and Labels for Biomedical EPR Applications</b> . <a href="#">Benoit Driesschaert</a> , West Virginia University
12:00 PM	Lunch (included with registration)

### Quantum Information (I) - Chair: Claudia Avalos

1:00 PM	TBA, John Morton, University College London
1:30 PM	<b>Identifying Sources of Entanglement Loss in Photo-driven Molecular Electron Spin Teleportation</b> . <a href="#">Yuheng Huang</a> , Northwestern University
1:50 PM	<b>Coherences of Photo-Induced Electron Spin Qubit Pair States in Photosynthetic Proteins</b> . <a href="#">Jasleen K Bindra</a> , Argonne National Laboratory
2:10 PM	<b>Using a Qubit Controller and Reader for More Efficient EPR Spectroscopy</b> . <a href="#">Jean-Baptiste Verstraete</a> , University College London
2:30 PM	<b>Ultra High-Field EPR Imaging</b> . <a href="#">Oleksii Laguta</a> , Brno University of Technology, Central European Institute of Technology
3:00 PM	Break

### Metals in Biology - Chair: Alexey Silakov

3:30 PM	<b>Bioinorganic Strategies to Study Multiple Facets in Alzheimer's Disease</b> . <a href="#">Mi Hee Lim</a> , Korea Advanced Institute of Science and Technology (KAIST)
4:00 PM	<b>Elucidating the Ternary Complex among Amyloid-beta, the Prion Protein, and Copper via Magnetic Resonance Techniques</b> . <a href="#">Amanda L. Smart</a> , University of California, Santa Cruz
4:20 PM	<b>New Cu(II) Complex to Increase Sensitivity in Pulsed Dipolar EPR Experiments</b> . <a href="#">Shramana Palit</a> , University of Pittsburgh
4:40 PM	<b>Investigating Contrast Agent Interactions with Human Serum Albumin</b> . <a href="#">Molly M. Lockart</a> , Samford University
5:00 PM	<b>Investigating Protein Structure and Function Through Paramagnetic Substitution of Native Metal Ions</b> . <a href="#">Bela E. Bode</a> , University of St Andrews
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

<b>Joint Session - EPR &amp; SSNMR - EPR CoChair: Songi Han and SSNMR CoChair: Joanna Long</b>	
8:00 AM	Plenary and IES Award: Christiane Timmel, University of Oxford
8:50 AM	<b>MAS NMR of Amorphous Calcium Carbonate Provides Proof for the Pre-nucleation Cluster Pathway.</b> <a href="#">Guinevere Mathies</a> , Leibniz Universität Hannover
9:20 AM	<b>High Precision Quantum Sensing with EPR Relaxometry in Flowing Microdroplets.</b> <a href="#">Ashok Ajoy</a> , University of California Berkeley
9:40 AM	<b>Optimal Control DNP Experiments.</b> <a href="#">Niels C. Nielsen</a> , Aarhus University
10:00 AM	Break
<b>Joint Session - EPR &amp; SSNMR - EPR CoChair: Songi Han and SSNMR CoChair: Joanna Long</b>	
10:20 AM	TBA - Marina Bennatti, University of Goettingen
10:50 AM	<b>Controlling Properties of High Surface Area Functional Materials.</b> <a href="#">Daniel Lee</a> , The University of Manchester and Université Grenoble Alpes
11:20 AM	<b>High-Field Magic Angle Spinning EPR Spectroscopy.</b> <a href="#">Iliia Kaminker</a> , Tel-Aviv University
11:40 AM	<b>Coherent Dynamic Nuclear Polarization at 94 GHz.</b> <a href="#">Yifan Quan</a> , Massachusetts Institute of Technology
12:00 PM	Lunch (included with registration)
<b>In Situ EPR - Chair: Sunil Saxena</b>	
1:30 PM	<b>Probing a Key Semiquinone Intermediate in the Mechanism of Respiratory Complex I with EPR Spectroscopy.</b> <a href="#">Maxie M. Roessler</a> , Imperial College London
2:00 PM	<b>Probing Lithium-organic Batteries with EPR Spectroscopy.</b> <a href="#">Davis Thomas Daniel</a> , Forschungszentrum Jülich and RWTH Aachen University
2:20 PM	<b>ESR as Important Tool for Understanding the Transition Metal Effect Over Metal Organic Framework During Charge/Discharge Process in Batteries.</b> <a href="#">Stephany Natasha Arellano-Ahumada</a> , Instituto Politécnico Nacional
2:40 PM	<b>Methane-to-Methanol Conversion over Fe-exchanged Zeolites: Site-Specific Reaction Dynamics from Modulated Excitation EPR Spectroscopy.</b> <a href="#">Jörg W. A. Fischer</a> , ETH Zurich
3:00 PM	<b>Electron Paramagnetic Resonance of Actinide Coordination Compounds: From Fundamental Electronic Structure to Nuclear Forensics.</b> <a href="#">Samuel M. Greer</a> , Los Alamos National Laboratory
3:20 PM	Break
<b>IES Award - Chair: Marina Bennati</b>	
4:00 PM	<b>IES AWARD: Low-Field EPR: Instrumentation Development for In Vivo Applications.</b> <a href="#">Hiroshi Hirata</a> , Hokkaido University
4:30 PM	IES AGM
Posters	
7:00-9:30 PM	Authors Present for Posters Labeled B

## WENESDAY, AUGUST 7, 2024

<b>EPR Structural Biology - Chair: Sunil Saxena</b>	
8:00 AM	Plenary: Hassane Mchourab, Vanderbilt University
8:30 AM	<b>Energy Barriers for Global Conformational Transitions in an ATP-fueled Membrane Transporter Determined using Time-resolved Pulsed Dipolar ESR Spectroscopy.</b> <a href="#">Benesh Joseph</a> , Freie Universität Berlin
8:50 AM	<b>Studies of Protein Functional Dynamics via Rapid-Scan EPR at High Field.</b> <a href="#">Brad D. Price</a> , University of California, Santa Barbara
9:10 AM	<b>Resolving Specific Interactions in Flexibly-linked Multidomain Biologics through Integrated Analysis of Inter-electron Spin Distances, X-ray Scattering, and Molecular Simulations.</b> <a href="#">Veronika A. Szalai</a> , National Institute of Standards & Technology
9:30 PM	Break
<b>Quantum Information (II) - Chair: Stefan Stoll</b>	
10:00 AM	TBA - Ryan Hadt, California Institute of Technology
10:30 AM	<b>Reinforcement Learning for Hamiltonian Engineering of Dipolar Coupled Spin Systems.</b> <a href="#">Chandrasekhar Ramanathan</a> , Dartmouth College
10:50 AM	<b>EPR of Nitroxides in O-Terphenyl at 20 MilliKelvin Using High-Q Micro-Resonators.</b> <a href="#">Ana Villanueva Ruiz de Temino</a> , London Centre for Nanotechnology, UCL
11:10 AM	<b>Spin-Lattice Relaxation of Cr(V) complexes - Experiments and Calculations.</b> <a href="#">Sandra S. Eaton</a> , University of Denver

12:00 PM	Lunch (included with registration)
<b>Defects and Spin Qubits - Chair: Sekhar Ramanathan</b>	
1:00 PM	Coherent Spin-Valley Oscillations In Silicon. <a href="#">Xinxin Cai</a> , University of Rochester
1:30 PM	Identification of an X-Band Clock Transition in Cp'3Pr- Enabled by a 4f25d1 Configuration. <a href="#">Jakub Hrubý</a> , National High Magnetic Field Laboratory
1:50 PM	Conformational Analysis of Macromolecular Rotaxane Systems by Pulsed Dipolar Spectroscopy Methods to Determine Suitability for Use as Molecular Qubits. <a href="#">Lubomir Loci</a> , University of Manchester
2:10 PM	Electrically Detected Magnetic Resonance Characterization of Interface Defects in Polysilicon Passivated Contact-based Silicon Solar Cells. <a href="#">Chirag Mule</a> , National Renewable Energy Laboratory and Colorado Scholl of Mines
2:30 PM	Excitons and Trions in Amorphous Silicon. <a href="#">Klaus Lips</a> , Freie Universität Berlin and University of Utah
3:00 PM	Break
<b>EPR Structural Biology - Chair: Mark Tseytlin</b>	
3:30 PM	Structural Dynamics of Sphingosine-1-phosphate Synthesis and Transport. <a href="#">Reza Dastvan</a> , Saint Louis University School of Medicine
4:00 PM	<sup>19</sup> F ENDOR Using High-spin Gd(III) Labels: Pushing the Resolution Limits and Rationalizing Orientation Selection. <a href="#">A. Bogdanov</a> , The Weizmann Institute of Science
4:20 PM	Structural Identification of Oligomers by Relaxation-filtered Distance Measurements. <a href="#">Tufa E Assafa</a> , Cornell University
4:40 PM	Protein-Coupled Solvent Dynamics in $\alpha$ -Synuclein Monomer and Aggregate States under Controlled Confinement. <a href="#">Kurt Warncke</a> , Emory University
5:00 PM	Proteins Under Confinement: From Fundamental Biophysics to Biomaterials Application. <a href="#">Zhongyu Yang</a> , North Dakota State 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

<b>High Field EPR - Chair: Stephen Hill</b>	
8:00 AM	FD-FT THz-EPR for Magneto-Structural Correlations of Transition Metal and Main Group Triplet States, <a href="#">Alexander Schnegg</a> , Max Planck Institute for Chemical Energy Conversion
8:30 AM	High-frequency (94 and 263 GHz) ENDOR and Statistical Approach for Spectra Analysis. <a href="#">Igor Tkach</a> , Max Planck Institute for Multidisciplinary Sciences
8:50 AM	THz Spectroscopic Ellipsometry EPR. <a href="#">Viktor Rindert</a> , Lund University
9:10 AM	Sixty-Fold Improvement in EPR Concentration Sensitivity at mm-Wave Frequencies by Large Volume, High-Q Resonators. <a href="#">Alex I. Smirnov</a> , North Carolina State University
9:30 PM	Break
<b>Methods - Chair: Sandra Eaton</b>	
10:00 AM	Ensemble Structure Determination of Proteins Based on Distance Distributions. <a href="#">G. Jeschke</a> , ETH Zurich
10:30 AM	Recipes for Efficient Dynamic Nuclear Polarization in Liquids at High Magnetic Field. <a href="#">Tomas Orlando</a> , National High Magnetic Field Laboratory
10:50 AM	Biophysical EPR Using Superconducting Resonators. <a href="#">Troy W. Borneman</a> , High Q Technologies
11:10 AM	Spin-orbit Driven Hyperfine Coupling of the Spin to the Static Electric Field in EPR-STM Spectroscopy. <a href="#">Katharina Lorena Franzke</a> , Paderborn University