

Scientific Program (as of August 18)

Time Zone					August 22 (Sun)
PDT	EDT	CEST	CST MYT	JST	
					Plenary Channel 1 (Zoom Webinar)
					Opening
					Chairs: Robert Tycko Toshikazu Nakamura
					Toshimichi Fujiwara Chair of ISMAR-APNMR 2021
					Robert Tycko President of ISMAR
					Akira Naito Chair of the 9th APNMR Symposium
					Masatsune Kainosho The 60th Anniversary of NMR Society of Japan (NMRSJ)
					Takeji Takui The 60th Anniversary of the Society of Electron Spin Science and Technology (SEST)
03:00	06:00	12:00	18:00	19:00	
					2021 ISMAR Prize Lecture
					Chairs: Robert Tycko Yoshiteru Seo
03:40	06:40	12:40	18:40	19:40	
					(PR-1) Kamil Uğurbil FROM SPIN PHYSICS to BRAIN FUNCTION
04:15	07:15	13:15	19:15	20:15	
					Break
04:25	07:25	13:25	19:25	20:25	
					2021 Abragam Prize Lecture
					Chairs: Robert Tycko Yusuke Nishiyama
04:35	07:35	13:35	19:35	20:35	
					(PR-2) Alexander C. Forse NMR Studies of Adsorption and Diffusion in New Materials for CO ₂ Capture
04:55	07:55	13:55	19:55	20:55	
					(PR-3) Tuo Wang Complex Carbohydrates in Intact Plant and Fungal Cell Walls Investigated Using Solid-State NMR and DNP Methods
05:15	08:15	14:15	20:15	21:15	
					Callaghan Lecture 2021
					Chairs: Alexej Jerschow Hiroshi Hirata
05:20	08:20	14:20	20:20	21:20	
					(PR-4) Matthew S. Rosen Life at the Bottom: NMR and MRI at 6.5 mT
05:55	08:55	14:55	20:55	21:55	
					Break
06:05	09:05	15:05	21:05	22:05	
					Ernst Memorial Session
					Chairs: Stephan Grzesiek Rafael Bruschweiler
					Kurt Wüthrich Kuniaki Nagayama Annalisa Pastore Geoffrey Bodenhausen Marc Baldus Masatsune Kainosho Robert G. Griffin Kazuyuki Akasaka Jeffrey Reimer Ad Bax

SOL: Solution NMR
 SS: Solid state NMR
 HYP: Hyper polarization and emerging fields
 MRI: Magnetic resonance imaging
 EPR: Electron paramagnetic resonance

Parallel Oral Session
 * marked (invited) : 25min (20 min presentation & 5 min discussion)
 no marked : 20min (16 min presentation & 4 min discussion)

Time Zone					August 23 (Mon)		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS1 Protein structures & dynamics [SOL] Chairs: Jun Kikuchi Takahisa Ikegami	PS2 Bacteria, enzyme & virus [SS] Chairs: Yoshitaka Ishii Takayuki Kamihara	PS3 Field cycling & qMRI [MRI] Chairs: Yusuke Nishiyama Yasuto Noda
Aug 22							
15:00	18:00	24:00	06:00	07:00	(PS1-1*) Mitsu Ikura The use of NMR in an integrated study on regulation of the RAS oncogenic pathway	(PS2-1*) Guido Pintacuda Fast Biomolecular NMR with Fast MAS (Without and With DNP)	(PS3-1*) Bruce J. Balcom Short T ₂ Relaxation Correlation and MRI Measurement
15:25	18:25	24:25	06:25	07:25	(PS1-2*) Alejandro J. Vila Protein dynamics at the heart of protein evolution	(PS2-2*) Lynette Cegelski New Discoveries in Bacterial Polysaccharides and Biofilms Enabled by Solid-state NMR Spectroscopy	(PS3-2*) David J. Lurie Fast Field-Cycling Magnetic Resonance Imaging
15:50	18:50	24:50	06:50	07:50	(PS1-3) Dong Long Visualizing the Transient Druggable Conformations of Inactive Ras by Solution NMR	(PS2-3) Himanshu Singh Slow Conformational Dynamics of the Protein-Water Network of a Prototypical "Rigid" Drug Target	(PS3-3*) Kathryn E. Keenan More than just a picture: the role of standards to make MRI quantitative (07:50-08:15 JST)
16:10	19:10	01:10	07:10	08:10	(PS1-4) Ryo Kitahara A Free Energy Landscape of T4 Lysozyme L99A Studied by Pressure-Dependent H/D Exchange and Relaxation Dispersion NMR	(PS2-4) Martin D. Gelenter Water Orientation and Dynamics in the Closed and Open Influenza B Virus M2 Proton Channels	(PS3-4) Simona Baroni Low field NMR Relaxometry for Intraoperative Tumour Margin Assessment in Breast-Conserving Surgery (08:15-08:35 JST)
16:30	19:30	01:30	07:30	08:30	Break		
					PS4 Protein dynamics [SOL] Chairs: Tomohide Saio Toshio Yamazaki	PS5 Amyloid [SS] Chairs: Akira Naito Tomoyasu Aizawa	PS6 Photo-excited DNP [HYP] Chairs: Kenji Sugisaki Hiroki Nagashima
16:40	19:40	01:40	07:40	08:40	(PS4-1*) Shih-Che Sue NMR study on chemokine polymer	(PS5-1*) Robert Tycko Millisecond Time-Resolved Solid-State NMR of Biomolecular Systems	(PS6-1*) Michael R. Wasielewski Exploiting Quantum Entanglement of Electron Spins in Photogenerated Radical Pairs
17:05	20:05	02:05	08:05	09:05	(PS4-2*) Koh Takeuchi Targeting the cryptic sites: NMR-based strategy to improve protein druggability by controlling the conformational equilibrium	(PS5-2*) Yoshitaka Ishii Progress in Sensitivity-Enhanced Protein Solid-state NMR using Ultra-fast MAS and Revealing Novel Polymorphs for 42-residue Amyloid β and other systems	(PS6-2) Tomoyuki Hamachi Triplet Dynamic Nuclear Polarization of Biomolecules with Porphyrins as Novel Polarizing Agents (09:05-09:25 JST)
17:30	20:30	02:30	08:30	09:30	(PS4-3) Yuki Toyama Oligomeric assembly regulating mitochondrial HtrA2 function as examined by methyl-TROSY NMR	(PS5-3) Jerry C. C Chan Effect of A β -42 Oligomers on the Aggregation of A β -40 Monomers	(PS6-3) Silvia Cavagnero Enhanced Nuclear-Spin Hyperpolarization of Amino Acids and Proteins via Reductive Radical Quenchers and Selective Isotope Labeling
17:50	20:50	02:50	08:50	09:50	(PS4-4) Geoffrey Li Characterization of Folding of Peripheral Myelin Protein 22 and Its Disease Mutant Forms by NMR Spectroscopy	(PS5-4) Jun-xia Lu The Amyloid Structure of RIPK3 (Receptor Interacting Protein Kinase 3) of mouse and human in Cell Necroptosis	(PS6-4) Saiya Fujiwara Triplet Dynamic Nuclear Polarization in Nanoporous Metal-Organic Frameworks
18:10	21:10	03:10	09:10	10:10	Break		
18:20	21:20	03:20	09:20	10:20	Mixing time PS1 [SOL]	Mixing time PS2 [SS]	Mixing time PS3 [MRI]
19:05	22:05	04:05	10:05	11:05	PS4 [SOL]	PS5 [SS]	PS6 [HYP]
Break							

Time Zone					August 23 (Mon)								
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)						
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS7 Protein structures & interactions (Atreya Memorial Session)[SOL] Chairs: Nagarajaro Suryaprakash Takahisa Ikegami			PS8 Proteins & membrane [SS] Chairs: Izuru Kawamura Kaoru Nomura			PS9 DNP for solution samples 1 [HYP] Chairs: Motohiro Mizuno Fuminori Hyodo		
Aug 22													
20:00	23:00	05:00	11:00	12:00	(PS7-1*) Mahavir Singh Structural And Functional Studies of Human Regulator of Telomere Elongation Helicase 1	(PS8-1*) Hartmut Oschkinat MAS Above 100 kHz: A Membrane Protein in Outer Membrane and a Bacterial Toxin Injection Machinery	(PS9-1*) Thomas Theis Targeting Precision Measurements, Portable NMR and Molecular Imaging with Parahydrogen Induced Polarization						
20:25	23:25	05:25	11:25	12:25	(PS7-2*) Raymond S. Norton Conformational dynamics and receptor interactions of disulfide-rich peptides	(PS8-2*) Marc Baldus Cellular solid-state NMR spectroscopy: Recent progress and applications	(PS9-2*) Christian Hilty Protein Structure, Dynamics and Folding Viewed Through Hyperpolarized NMR						
20:50	23:50	05:50	11:50	12:50	(PS7-3) Naohiro Kobayashi An integrated tool for highly automated and accurate analysis of NMR assisted by Deep Neural Networks	(PS8-3) Ayyalusamy Ramamoorthy Novel nanodiscs for atomic-resolution structure and dynamics studies on membrane proteins by NMR	(PS9-3) Shannon Eriksson 2-Field SABRE: Enhanced hyperpolarization from non-intuitive field sequences						
21:10	24:10	06:10	12:10	13:10	(PS7-4) Jin Hae Kim Local Disorder of Transthyretin Modulates Its Aggregation-Prone Propensity	(PS8-4) Antoine Loquet Structural biology of functional amyloids by solid-state NMR	(PS9-4) Murari Soundararajan Solution DNP at 14 T Using a Novel, Large Volume, Double Resonance NMR Probe						
21:30	24:30	06:30	12:30	13:30									
Break													
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)								
21:40	24:40	06:40	12:40	13:40	Plenary Lecture 1 Chairs: Daniella Goldfarb Hiromasa Yagi (PL-1) Gottfried Otting Probing Protein Structure with Paramagnetic and Chemical Tags								
22:25	01:25	07:25	13:25	14:25									
Break													
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Meetings)								
22:35	01:35	07:35	13:35	14:35	Mixing time								
23:20	02:20	08:20	14:20	15:20	Plenary Lecture 1 [Otting]								
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)						
22:35	01:35	07:35	13:35	14:35	Mixing time PS7 [SOL]	Mixing time PS8 [SS]	Mixing time PS9 [HYP]						
23:20	02:20	08:20	14:20	15:20									
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)								
23:20	02:20	08:20	14:20	15:20	Corporate Seminar 1 Chair: Hajime Sato (CS-1) Rainer Kümmerle, Lucia Banci, Christian Griesinger, Loren Andreas [Bruker] Update on 1.2 GHz technology and deliveries								
24:20	03:20	09:20	15:20	16:20									
Break													

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PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS10 Dynamical exchanges in proteins [SOL] Chairs: Koh Takeuchi Toshio Yamazaki	PS11 Emerging techniques 1 [HYP] Chairs: Kazuyuki Takeda Munehiro Inukai	PS12 New methods 1 [EPR] Chairs: Toshiaki Arata Hiroyuki Mino
03:00	06:00	12:00	18:00	19:00	(PS10-1*) Daiwen Yang Protein Conformational Exchange Induced by Transient Protein-membrane Interactions	(PS11-1*) Alexey Kiryutin ZULF-TOCSY: New Mixing Block for High-resolution Heteronuclear Correlation Spectroscopy Using Ultralow Magnetic Fields	(PS12-1*) Gunnar Jeschke Understanding Electron Spin Decoherence in Glassy Matrices by Dynamical Decoupling and Noise Spectroscopy
03:25	06:25	12:25	18:25	19:25	(PS10-2*) Malene Ringkjøbing Jensen Capturing the High-Resolution Structure of a Low-Populated Aromatic Ring Flipping Intermediate	(PS11-2*) Giulia Mollica <i>Ex-Situ</i> Time-Resolved Investigation of Nucleation and Crystallisation of Polymorphic Molecular Solids via Solid-State DNP NMR	(PS12-2) Alexey Potapov Application of spherical harmonics for DEER data analysis in systems with conformational distribution. (19:25-19:45 JST)
03:50	06:50	12:50	18:50	19:50	(PS10-3) Stefan Nebl Deciphering Electron Flow in Neisserial DsbD Enzyme by NMR Dynamics	(PS11-3) Takayuki Kumada Spin-Contrast-Variation Small-Angle Scattering, Reflectometry, and Diffractometry Using Polarized Neutrons and Proton-Polarized Samples	(PS12-3) Markus Teucher Reviving 3-pulse DEER from the dead(time) using milliwatt powers
04:10	07:10	13:10	19:10	20:10	(PS10-4) Miguel Mompeán Necrosome Core Assembly Studied by Nuclear Magnetic Resonance Spectroscopy	(PS11-4) Beatrice Karg Recent Progress in β -NMR at CERN	(PS12-4) Angeliki Giannoulis <i>In vitro</i> and in cell Hsp90 conformations combining Mn(II), Gd(III) and nitroxide labels
04:30	07:30	13:30	19:30	20:30	Break		
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar) Plenary Lecture 2 Chairs: Gunnar Jeschke Norikazu Mizuochi (PL-2) Jörg Wrachtrup Probing quantum physics and materials with single spins		
04:40	07:40	13:40	19:40	20:40	Break		
05:25	08:25	14:25	20:25	21:25	Break		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
					PS13 Interactions [SOL] Chairs: Koh Takeuchi Youhei Miyanoiri	PS14 Emerging techniques 2 [HYP] Chairs: Atsushi Asano Yasuhiko Yamamoto	PS15 Battery & semiconductor 1 [SS] Chairs: Miwa Murakami Kazuma Gotoh
05:35	08:35	14:35	20:35	21:35	(PS13-1*) Rina Rosenzweig Molecular Chaperones in Health and Disease - What we can learn by NMR	(PS14-1*) Kazuyuki Takeda Exploring NMR through Mechanics and Optics	(PS15-1*) Alexej Jerschow Inside-out MRI and magnetometry for battery diagnostics
06:00	09:00	15:00	21:00	22:00	(PS13-2*) Sulakshana P. Mukherjee Insights into the Mechanism of a Specific NF-kappaB Dimer Formation	(PS14-2*) Thomas Meersmann MRI of Monoatomic Spin Systems with Nuclear Electric Quadrupole Moment	(PS15-2*) Igor V. Koptug NMR and MRI Studies of Catalytic Processes
06:25	09:25	15:25	21:25	22:25	(PS13-3) Carlos Elena-Real NMR characterization of Non-pathogenic and Pathogenic forms of Huntingtin Poly-Q Homorepeat	(PS14-3) Bing Wu Digital Microfluidics-NMR Interface: the Next Generation Microvolume Chemical Reaction Monitoring Platform	(PS15-3) David L. Bryce Tetrel Bonds Studied via Solid-State NMR

Time Zone					August 23 (Mon)		
06:45	09:45	15:45	21:45	22:45	(PS13-4) Virginia Casablancas-Antras Mechanism of Tau R3 Aggregation and Inhibition Revealed by NMR-based Chemical Kinetics	(PS14-4) Vineeth Francis Thalakottoor Jose Chacko Nonlinear Magnetization Dynamics of DNP-Hyperpolarized Spins at Cryogenic Temperatures: Experiments, Simulations and Control	
07:05	10:05	16:05	22:05	23:05			
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Meetings)		
7:05	10:05	16:05	22:05	23:05	Mixing time		
7:50	10:50	16:50	22:50	23:50	Plenary Lecture 2 [Wrachtrup]		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
7:05	10:05	16:05	22:05	23:05	Mixing time	Mixing time	Mixing time
7:50	10:50	16:50	22:50	23:50	PS10 [SOL] PS13 [SOL]	PS11 [HYP] PS14 [HYP]	PS12 [EPR] PS15 [SS]

Time Zone					August 24 (Tue)		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS16 Viruses [SOL] Chairs: Shinichi Tate Takuya Torizawa	PS17 Hardware [SS] Chairs: Kazuhiko Yamada Kazuyuki Takeda	PS18 DEER 1 [EPR] Chairs: Hiroshi Hirata Kazuhiro Ichikawa
Aug 23							
15:00	18:00	24:00	06:00	07:00	(PS16-1*) Ad Bax RDCs Provide New Information About SARS-CoV-2 Proteins	(PS17-1) Eugeny Kryukov A cryogen-free magnet for multiple field (zero to 14.1 T) solid state MAS NMR applications (07:00-07:20 JST)	(PS18-1*) Nicholas Cox New Spin Labelling Tools For Applications In Structural Biology
15:25	18:25	24:25	06:25	07:25	(PS16-2*) Michael F. Summers NMR Studies of Cap-Dependent HIV-1 Genome Packaging	(PS17-2) C. Blake Wilson Millisecond Temperature Drop-Induced Protein Folding and Oligomerization Captured With Time-Resolved Dynamic Nuclear Polarization-Enhanced Solid- State NMR (07:25-07:45 JST)	(PS18-2) Sharon Ruthstein Utilizing EPR spectroscopy and computational modelling to evaluate the mechanism underlying pathogen metal transcription activators and de- repressors (07:25-07:45 JST)
15:50	18:50	24:50	06:50	07:50	(PS16-3) Sang Ho Park Interactions of SARS-CoV-2 Envelope Protein with Amilorides and its Correlation with Antiviral Activity	(PS17-3) Pin-Hui Chen Magic Angle Spinning Spheres	(PS18-3) Zikri Hasanbasri Cleavage-resistant Protein Labeling with Hydrophilic Trityl Enables Distance Measurements In-Cell
16:10	19:10	01:10	07:10	08:10	(PS16-4) Jae-Hyun Cho Free Energy Landscape of Molecular Recognition Between Host Proteins and NS1 Proteins of Influenza Viruses	(PS17-4) Jiangfeng Guo Portable Proteus Magnet Design and Laminar Flow Velocity Profiles Determination	(PS18-4) Masaki Horitani Analysis on Cold Adaptation Mechanism of Metalloenzyme by X-ray Crystallography and EPR Spectroscopy Combined with Rapid Freeze-Quench
16:30	19:30	01:30	07:30	08:30			
Break							
PDT	EDT	CEST	CST MYT	JST	Remo 1st floor ~ 7th floor (e.g. P1-1-2 @1st floor)		Remo 8th floor
16:40	19:40	01:40	07:40	08:40	Poster Session (P1) 08:40-09:40 P1-x-(odd number) 09:40-10:40 P1-x-(even number)		Mixing time 07:40-11:40
18:40	21:40	03:40	09:40	10:40	07:40-11:40 Poster Viewing		
Break							
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
18:50	21:50	3:50	9:50	10:50	Mixing time PS16 [SOL]	Mixing time PS17 [SS]	Mixing time PS18 [EPR]
19:35	22:35	4:35	10:35	11:35			
Break							
					PS19 Measurements & analyses [SOL] Chairs: Takahisa Ikegami Hideo Takahashi	PS20 Gene & cell [SS] Chairs: Yoshitaka Ishii Kaoru Nomura	PS21 NV center [HYP] Chairs: Norikazu Mizuochi Yoh Matsuki
20:00	23:00	05:00	11:00	12:00	(PS19-1*) Bikash Baishya Improving the Quantitative Aspect of 2D ¹ H- ¹³ C HSQC by Spatial Encoding of the Polarization Transfer periods	(PS20-1*) Kendra K. Frederick In-Cell Sensitivity-Enhanced NMR of Intact Living Mammalian Cells	(PS21-1*) Pablo R. Zangara Generation and Transport of Nuclear Spin Hyperpolarization by Cross- Relaxation of Paramagnetic Centers in Diamond
20:25	23:25	05:25	11:25	12:25	(PS19-2*) Burkhard Luy Rheological Alignment and Tensorial Constraints: Novel Techniques for Catching Flexibility in Molecules	(PS20-2) Galia Debelouchina MAS NMR studies of heterochromatin interactions and dynamics (12:25-12:45 JST)	(PS21-2*) Vincent Jacques Exploring magnetism at the nanoscale with a single spin microscope
20:50	23:50	05:50	11:50	12:50	(PS19-3) Jung Ho Lee Development of Ultrahigh- Resolution NMR Experiments for the Investigation of Intrinsically Disordered Proteins	(PS20-3) Markus Weingarth Understanding Antibiotics with solid- state NMR	(PS21-3) Ashok Ajoy Quantum sensing with optically hyperpolarized nuclei

Time Zone					August 24 (Tue)		
21:10	24:10	06:10	12:10	13:10	(PS19-4) Ēriks Kupče Multiple Receivers and NMR Supersequences – Increasing Sensitivity and Speed of Data Acquisition in NMR	/	(PS21-4) Takuya F. Segawa Single-particle distance measurements using optical and magnetic resonance methods
21:30	24:30	06:30	12:30	13:30			
Break							
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)		
21:40	24:40	06:40	12:40	13:40	Plenary Lecture 3 Chairs: Gaël De Paëpe Makoto Negoro (PL-3) T. S. Mahesh NMR as a Quantum Workshop		
22:25	01:25	07:25	13:25	14:25	Break		
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Meetings)		
22:35	01:35	07:35	13:35	14:35	Mixing time		
23:20	02:20	08:20	14:20	15:20	Plenary Lecture 3 [T. S. Mahesh]		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
22:35	01:35	07:35	13:35	14:35	Mixing time PS19 [SOL]	Mixing time PS20 [SS]	Mixing time PS21 [HYP]
23:20	02:20	08:20	14:20	15:20	Plenary Channel 1 (Zoom Webinar)		
23:20	02:20	08:20	14:20	15:20	Corporate Seminar 2 (CS-2) Manuel Perez [JEOL] Making the most of your NMR: Introduction to JASON software (CS-3) James Kempf [Bruker] Dynamic Nuclear Polarization for solids and Liquid State NMR and MRI Chair: Hideaki Kimura (CS-4) Takashi Yabuki [Taiyo-Nippon-Sanso] Cell-Free Protein Synthesis for Stable-Isotope-Aided NMR		
24:05	03:05	09:05	15:05	16:05	Break		
					PS22 Disordered proteins [SOL] Chairs: Takahisa Ikegami Ryo Kitahara	PS23 Complex materials 1 [SS] Chairs: Motohiro Mizuno Kazuhiko Yamada	PS24 DNP for solution samples 2 [HYP] Chairs: Akinori Kagawa Shingo Matsumoto
03:00	06:00	12:00	18:00	19:00	(PS22-1*) Giacomo Parigi Fast Field Cycling Relaxometry in Life Sciences	(PS23-1*) Daniil I. Kolokolov Uncovering the Proton Transfer Mechanism in Solid Conductors by Solid State 2H NMR Spectroscopy: from Polyoxometalates to Metal-Organic Frameworks	(PS24-1*) Jan Ardenkjær-Larsen Dissolution DNP
03:25	06:25	12:25	18:25	19:25	(PS22-2*) Roberta Pierattelli The Role of Proline Residues in Intrinsically Disordered Proteins and Proteins' Regions	(PS23-2*) Sharon E. Ashbrook Exploiting Isotopic Enrichment in NMR Spectroscopy of Microporous Materials	(PS24-2*) James Eills Hyperpolarization-enhanced NMR using parahydrogen-polarized [1- ¹³ C] fumarate
03:50	06:50	12:50	18:50	19:50	(PS22-3) Andrea Bodor Selective ¹ H NMR Methods to Reveal Proline <i>cis/trans</i> Isomers in IDPs: Minor Forms, Phosphorylation Effects, Occurrence in Proteome	(PS23-3) Xueqian Kong Solid-state NMR of Nanostructures: from the surface of nanocrystals to the defects in nanoporous frameworks	(PS24-3) Stefan Glöggler Mobile Para-Hydrogen Enhanced Magnetic Resonance
04:10	07:10	13:10	19:10	20:10	(PS22-4) Jordan H. Chill STRUCTURAL VIEW OF MEMBRANE-TARGETING AND INDUCED UNFOLDING IN THE BTEA-BTCA EFFECTOR-CHAPERONE COMPLEX IN <i>BORDETELLA</i>	(PS23-4) Marianne Gaborieau Molecular Insights into Industrial Polymers from Solid-State NMR Spectroscopy to Design Biobased Adhesives	(PS24-4) Maria Grazia Concilio High-field solution state DNP using cross-correlations
04:30	07:30	13:30	19:30	20:30	Break		

Time Zone					August 24 (Tue)		
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)		
04:40	07:40	13:40	19:40	20:40	Plenary Lecture 4 Chairs: Jan Ardenkjaer-Larsen Toshimichi Fujiwara (PL-4) Sami Jannin Dissolution Dynamic Nuclear Polarization: birth, decline, and awakening		
05:25	08:25	14:25	20:25	21:25	Break		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS25 IDP & LLPS [SOL] Chairs: Yutaka Ito Takanori Kigawa	PS26 Material science 1 [EPR] Chairs: Hitoshi Ohta Ikuko Akimoto	PS27 DNP for solution samples 3 [HYP] Chairs: Yusuke Nishiyama Munehiro Inukai
05:35	08:35	14:35	20:35	21:35	(PS25-1*) Jeong-Yong Suh Structural Investigation of anti-CRISPR AcrIIA5 and AcrIF7 for CRISPR Inhibition	(PS26-1*) Kazuhiro Marumoto Spin-States in MoS ₂ Thin-Film Transistors Distinguished by Operando Electron Spin Resonance	(PS27-1*) Eleonora Cavallari ParaHydrogen Hyperpolarized Pyruvate for Molecular Imaging Studies
06:00	09:00	15:00	21:00	22:00	(PS25-2*) Birthe B. Kragelund Disordered Protein Complexes	(PS26-2) Tomoaki Miura Magnetic Field Effects on Organic Photovoltaic Thin Films as Studied by Simultaneous Optical-Electrical Transient Measurement (22:00-22:20 JST)	(PS27-2*) Dudari B. Burueva Parahydrogen-Induced Polarization with Heterogeneous Catalysts (HET-PHIP): the Recent Advances
06:25	09:25	15:25	21:25	22:25	(PS25-3*) Julie D. Forman-Kay NMR Insights into Phase Separation of Intrinsically Disordered Protein Regions of CAPRIN1 and FMRP (22:25-22:50 JST)	(PS26-3) Thomas S. C. MacDonald Direct Measurements of Singlet Fission Spin Dynamics by 2D Nutation Spectroscopy	(PS27-3) Andrea Capozzi Metabolic contrast agents produced from transported solid ¹³ C-glucose hyperpolarized via Dynamic Nuclear Polarization
06:45	09:45	15:45	21:45	22:45	(PS25-4*) Jie-rong Huang 'Tales' of the Musashi family: how intrinsically disordered regions of proteins mediate their liquid-liquid phase separation (22:50-23:15 JST)	(PS26-4) Sonia Chhabra Catalysis by EPR: Examples, Insights and Perspective	(PS27-4) Danhua Dai ¹ H Overhauser DNP of Lipids at 9.4 Tesla
07:05	10:05	16:05	22:05	23:05	Plenary Channel 2 (Zoom Meetings)		
07:05	10:05	16:05	22:05	23:05	Mixing time Plenary Lecture 4 [Jannin]		
07:50	10:50	16:50	22:50	23:50	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
07:05	10:05	16:05	22:05	23:05	Mixing time PS22 [SOL] (23:05-23:50 JST) PS25 [SOL] (23:15-24:30 JST)	Mixing time PS23 [SS] PS26 [EPR]	Mixing time PS24 [HYP] PS27 [HYP]
07:50	10:50	16:50	22:50	23:50			

Time Zone					August 25 (Wed)							
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)					
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS28 Protein interactions [SOL] Chairs: Hidekazu Hiroaki Masaki Mishima	PS29 Battery & semiconductor 2 [SS] Chairs: Kazuma Gotoh Miwa Murakami	PS30 In vivo ESR [EPR] Chairs: Shingo Matsumoto Kazuhiro Ichikawa					
Aug 24					15:00	18:00	24:00	06:00	07:00	(PS28-1*) Tomohide Saio Conformational Variation of a Multi-Domain Protein Enzyme Investigated by Paramagnetic Lanthanide Probe	(PS29-1*) Raphaële Clément Insights into Cation-Disordered Rocksalt Oxyfluoride Li-ion Cathodes: A Paramagnetic Solid-State NMR and First Principles Simulations Approach	(PS30-1*) Hiroshi Hirata Simultaneous mapping of the partial pressure of oxygen, pH and inorganic phosphate using electron paramagnetic resonance
					15:25	18:25	24:25	06:25	07:25	(PS28-2*) Saeko Yanaka Stable isotope-assisted NMR analysis of dynamics and interactions of the Fc region of immunoglobulin G as glycoprotein	(PS29-2*) Aaron J. Rossini Surface Characterization of Semiconductor Nanoparticles by MAS Dynamic Nuclear Polarization Solid-State NMR Spectroscopy	(PS30-2) Benoit Driesschaert Design and Synthesis of Triarylmethyl Radical Spin Probes for In Vivo Profiling of Tissue Microenvironment by EPR (07:25-07:45 JST)
					15:50	18:50	24:50	06:50	07:50	(PS28-3) Junji Iwahara <i>De novo</i> determination of near-surface electrostatic potentials by NMR	(PS29-3*) Luke A. O'Dell Operando MRI for quantitative mapping of temperature and redox species concentrations in thermo-electrochemical cells (07:50-08:15 JST)	(PS30-3) Alex L. Lai SARS-CoV-2 Fusion Peptide has a Greater Membrane Perturbing Effect than SARS-CoV with Highly Specific Dependence on Ca ²⁺ : An ESR Study
					16:10	19:10	01:10	07:10	08:10	(PS28-4) Beat Vögeli Construction of coupled intra- and interdomain protein motion from NMR and EPR	(PS29-4) Xiaolong Liu Hydrogen impurities in ZnO: shallow donors in ZnO semiconductors and active sites for hydrogenation of carbon species (08:15-08:35 JST)	(PS30-4) Elena Bagryanskaya Gentle Delivery of Stable Nitroxide Into Cells: Real Time Monitoring By EPR
					Break							
					PS31 Protein structures & interactions [SOL] Chairs: Yutaka Ito Tomoyasu Aizawa	PS32 MAS DNP 1 [HYP] Chairs: Toshimichi Fujiwara Makoto Negoro	PS33 Spintronics [EPR] Chairs: Hiroyuki Nojiri Susumu Okubo					
					16:40	19:40	01:40	07:40	08:40	(PS31-1*) Weontae Lee PROTEIN-PROTEIN INTERACTION AND DYNAMICS OF HUMAN CHROMATIN REMODELING COMPONENTS	(PS32-1*) Robert G. Griffin Time Domain DNP at 1.2 T	(PS33-1*) Motoi Kimata Spintronics phenomena with unconventional spintronic materials
					17:05	20:05	02:05	08:05	09:05	(PS31-2*) Frances Separovic Location of the Antimicrobial Peptide Maculatin 1.1 in Model Bacterial Membranes	(PS32-2*) Yoh Matsuki Methods and Instruments for High-Field Dynamic Nuclear Polarization (DNP)-MAS NMR toward Meso-Scale Structural Biology	(PS33-2) Katsuichi Kanemoto Quantifying Power Flow Processes Mediated by Spin Currents in Metal Bilayer Devices (09:05-09:25 JST)
					17:30	20:30	02:30	08:30	09:30	(PS31-3) Horst Joachim Schirra Characterising a Core Metabolic Enzyme Responsible for Phosphine Resistance and Fundamental Metabolic Regulation: From NMR-metabolomics to an International Research Consortium	(PS32-3) Marc-Antoine Sani DNP NMR study of the antimicrobial peptide maculatin 1.1 in live <i>E. coli</i> bacteria	(PS33-3) Toru Sakai Novel Quantum Phase Transition of the Shastry-Sutherland System and ESR Forbidden Transition
					17:50	20:50	02:50	08:50	09:50	(PS31-4) Yohei Miyanoiri Relaxation optimized SAIL for NMR studies of supramolecular proteins	(PS32-4) Hiroki Nagashima DNP-enhanced MQMAS experiment using <i>D</i> -RINEPT transfer	(PS33-4) Subray Bhat Temperature Dependence of EPR Linewidth in Bi _{0.5} Ca _{0.5} MnO ₃ : Classical vs Generalized Berezinskii-Kosterlitz-Thouless Behaviour
					18:10	21:10	03:10	09:10	10:10	(PS31-5*) Elizaveta A. Suturina Role of magnetic anisotropy in paramagnetic relaxation enhancement		
					18:35	21:35	03:35	09:35	10:35			
					Break							

Time Zone					August 25 (Wed)					
18:20	21:20	03:20	09:20	10:20	Mixing time PS28 [SOL] (10:20-11:05 JST) PS31 [SOL] (10:45-11:30 JST)		Mixing time PS29 [SS] PS32 [HYP]		Mixing time PS30 [EPR] PS33 [EPR]	
19:05	22:05	04:05	10:05	11:05	Break					
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS34 Paramagnetism in solution NMR [SOL] Chairs: Tomohide Saio Hiromasa Yagi		PS35 Nuclear spin [SS] Chairs: Hiroki Nagashima Yasuto Noda		PS36 MAS DNP 2 [HYP] Chairs: Yoh Matsuki Kazuyuki Takeda	
Aug 24										
20:00	23:00	05:00	11:00	12:00	(PS34-1*) Daniel Häussinger Surprises from studying intrinsic paramagnetic susceptibility tensors, new lanthanoid chelating tags and extending pseudocontact shift NMR to the RNA world		(PS35-1) Ilya V. Yakovlev ⁵⁹ Co Internal Field NMR as a tool for determining structure and sizes of Co nanoparticles (12:00-12:20 JST)		(PS36-1*) Gaël De Paëpe ENHANCING DNP SENSITIVITY WITH SUSTAINABLE CRYOGENIC HELIUM MAS AND IMPROVED POLARIZING AGENTS	
20:25	23:25	05:25	11:25	12:25	(PS34-2*) Xun-Cheng Su Stable paramagnetic tags for in-cell NMR and EPR analysis		(PS35-2*) Jeffrey A. Reimer Exploiting Landau-Zener Crossings from Athermal Electrons for Nuclear Hyperpolarization		(PS36-2*) Alexander B. Barnes Technology for NMR >28 Tesla, Pulsed Dynamic Nuclear Polarization, and In-cell Structural Biology	
20:50	23:50	05:50	11:50	12:50	(PS34-3) Marcel Blommers Efficient Fragment Screening using a Paramagnetic Fragment Library		(PS35-3) Dominik B. Bucher NMR at surfaces and interfaces using quantum sensors in diamond		(PS36-3) Daniel Jardón-Álvarez ⁸⁹ Y- ⁸⁹ Y Correlations in Solid State NMR via Direct Hyperpolarization from Paramagnetic Metal Ion Dopants	
21:10	24:10	06:10	12:10	13:10	(PS34-4) Elad Goren Versatile Non-luminescent Colors based on Guest Exchange Dynamics in Paramagnetic Cavities		(PS35-4) Thomas Meier Nuclear spin coupling crossover in dense molecular hydrogen		(PS36-4) Svetlana Pylaeva Mixed-valence Polarizing Agents for Efficient Overhauser Effect DNP in Insulating Solids at High Magnetic Fields	
21:30	24:30	06:30	12:30	13:30	Break					
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar) Plenary Lecture 5 Chairs: Elena Bagryanskaya Tadaaki Ikoma (PL-5) Thomas F. Prisner Pulsed Dipolar EPR Spectroscopy: New methodological developments and new applications to RNA					
21:40	24:40	06:40	12:40	13:40	Break					
22:25	01:25	07:25	13:25	14:25	Plenary Channel 1 (Zoom Webinar) IES Silver Medal for Chemistry 2021 Prize Lecture Chairs: Songji Han Hitoshi Ohta (PR-5) Elena Bagryanskaya Exciting life stories of short- and long-lived radicals: magnetic resonance application in biology and material science					
23:15	05:15	08:15	14:15	15:15	Parallel Channel 1 (Zoom Meetings)		Parallel Channel 2 (Zoom Meetings)		Parallel Channel 3 (Zoom Meetings)	
22:35	01:35	07:35	13:35	14:35	Mixing time PS34 [SOL]		Mixing time PS35 [SS]		Mixing time PS36 [HYP]	
23:20	05:20	08:20	14:20	15:20	Break					
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Meetings)					
23:20	02:20	08:20	14:20	15:20	Mixing time Plenary Lecture 5 [Prisner]			Mixing time Prize Lecture 5 [Bagryanskaya]		
24:05	03:05	09:05	15:05	16:05	Break					

Time Zone					August 25 (Wed)		
PDT	EDT	CEST	CST MYT	JST	Remo 1st floor ~ 7th floor (e.g. P2-1-2 @1st floor)		Remo 8th floor
02:30	05:30	11:30	17:30	18:30	Poster Session (P2) 18:30-19:30 P2-x-(odd number) 19:30-20:30 P2-x-(even number) 17:30-21:30 Poster Viewing		Mixing time 16:00-21:30
04:30	07:30	13:30	19:30	20:30			
Break							
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)		
04:40	07:40	13:40	19:40	20:40	Plenary Lecture 6 Chairs: Igor V. Koptiug Shingo Matsumoto (PL-6) Silvio Aime Routes to improve tumour detection/characterization by NMR/MRI		
05:25	08:25	14:25	20:25	21:25			
Break							
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
<small>JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time</small>					PS37 Proteins involved in drug discovery [SOL] Chairs: Hidekazu Hiroaki Hidehito Tochio	PS38 Recoupling & decoupling [SS] Chairs: Yusuke Nishiyama Motohiro Mizuno	PS39 New methods 2 [EPR] Chairs: Seitaro Mitsudo Susumu Okubo
05:35	08:35	14:35	20:35	21:35	(PS37-1*) Wolfgang Jahnke NMR to support targeted protein degradation in drug discovery	(PS38-1*) Madhu Kovilakathu Perunthiruthy Recoupling Schemes in Solid-State NMR in a New Light	(PS39-1*) Hitoshi Ohta Multi-extreme THz ESR: Recent Developments and Applications
06:00	09:00	15:00	21:00	22:00	(PS37-2*) Ranabir Das Monitoring Protein Ubiquitination in real-time by NMR	(PS38-2*) Vipin Agarwal Different Approaches to Generate ¹ H- ¹ H Structural Restraints for Pharmaceutical and Biomolecules at Fast MAS	(PS39-2*) Alena Sheveleva Application of EPR Spectroscopy for the investigation of porous materials (MOFs, Zeolites) for eco-friendly chemistry: from NO _x -mitigation to biomass catalysis
06:25	09:25	15:25	21:25	22:25	(PS37-3) Paul R. Gooley Using NMR to Probe Ligand Induced Changes in α_1A -Adrenoceptor Conformational Equilibria	(PS38-3) Evgeny Nimerovsky Heteronuclear and Homonuclear Radio Frequency Driven Recoupling	(PS39-3) Aharon Blank Superconducting surface micro-resonators for general-purpose ESR
06:45	09:45	15:45	21:45	22:45	(PS37-4) Layara Akemi Abiko New Regulatory Aspects of the β_1 -adrenergic Receptor Conformational Equilibrium	(PS38-4) Nghia Tuan Duong On the Use of Radio-Frequency Offsets for Improving Double-Quantum Homonuclear Dipolar Recoupling of Half-Integer Spin Quadrupolar Nuclei	(PS39-4) Christoph W. Zollitsch Enhanced ESR Sensitivity by Resonator Design Optimization
07:05	10:05	16:05	22:05	23:05	Mixing time PS37 [SOL]	(PS38-5*) Lyndon Emsley Pure isotropic ¹ H NMR Spectra of Solids	Mixing time PS39 [EPR]
07:30	10:30	16:30	22:30	23:30		Mixing time PS38 [SS]	
07:50	10:50	16:50	22:50	23:50			
08:15	11:15	17:15	23:15	24:15			
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Meetings)		
07:05	10:05	16:05	22:05	23:05	Mixing time Prize Lecture 6 [Aime]		
07:50	10:50	16:50	22:50	23:50			

Time Zone					August 26 (Thu)												
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)										
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS40 Complex protein structures [SOL] Chairs: Masato Katahira Takahisa Ikegami	PS41 Complex materials 2 [SS] Chairs: Atsushi Asano Kazuhiko Yamada	PS42 New methods 3 [EPR] Chairs: Akio Kawai Hideto Matsuoka										
Aug 25					15:00	18:00	24:00	06:00	07:00	(PS40-1*) Shang-Te Danny Hsu Structural Insights into How ZFAND1 Recruits p97 for the Clearance of Arsenite-Induced Stress Granules	(PS41-1*) Mattias Edén Solid-State NMR Studies of Phosphoserine-Doped Calcium Phosphate Cements with Bone-Adhesive Properties	(PS42-1*) Sergey L. Veber Circularly-polarized light for manipulation of single molecule magnets: fundamental aspects and perspectives granted by the large-scale facilities					
					15:25	18:25	24:25	06:25	07:25	(PS40-2*) Harald Schwalbe (NMR) Structural Biology in and at the ribosome and beyond	(PS41-2*) Yusuke Nishiyama Quantitative Distance Measurements between ¹ H and X by Fast MAS Solid-State NMR	(PS42-2) Kevin Singewald Measurement of Site-Specific Dynamics Permitted by dHis Based EPR Measurements (07:25-07:45 JST)					
					15:50	18:50	24:50	06:50	07:50	(PS40-3) Sai Chaitanya Chiliveri Membrane Bound Structure of HR1 Domain of the SARS-CoV-2 Envelope Protein	(PS41-3) Neeraj Sinha Probing Inter - and Intra - Molecular Interactions of Collagen Containing Native Biomaterials such as Bones and Cartilage	(PS42-3) Hiroyuki Mino Molecular Structure of the S ₂ State with a g = 5 Signal in the Oxygen Evolving Complex of Photosystem II					
					16:10	19:10	01:10	07:10	08:10	(PS40-4) Matthew Eddy Structural Basis for Regulation of a Human G Protein-Coupled Receptor by Endogenous Phospholipids Investigated by NMR Spectroscopy		(PS42-4) Yoshio Teki Photogenerated Carrier Dynamics in TIPS-Pentacene Film as Studied by Electrically Detected Magnetic Resonance					
					16:30	19:30	01:30	07:30	08:30								
Break																	
					Remo 1st floor ~ 7th floor (e.g. P3-1-2 @1st floor)					Remo 8th floor							
					Poster Session (P3) 08:40-09:40 P3-x-(odd number) 09:40-10:40 P3-x-(even number) 07:40-11:40 Poster Viewing					Mixing time 07:40-11:40							
					Break												
					Mixing time PS40 [SOL]			Mixing time PS41 [SS]			Mixing time PS42 [EPR]						
					Break												
Aug 25					PS43 Post-translational modification [SOL] Chairs: Shinichi Tate Hidehito Tochio	PS44 Spin manipulation [EPR] Chairs: Toshikazu Nakamura Hideto Matsuoka	PS45 Sensitivity enhancement [MRI] Chairs: Fuminori Hyodo Izuru Kawamura										
20:00	23:00	05:00	11:00	12:00	(PS43-1*) Anne C. Conibear Structural Subtleties of Protein Posttranslational Modifications	(PS44-1*) Kazunobu Sato Spin Manipulation of Stable Organic Radicals Using Arbitrary Waveform Pulses based on Pulse-ESR spectroscopy	(PS45-1*) Luisa Ciobanu Advances and Promises in Chemical Exchange Saturation Transfer Imaging at Ultra-High Magnetic Fields										
20:25	23:25	05:25	11:25	12:25	(PS43-2*) Koichi Kato NMR characterization of conformational dynamics of carbohydrate and ubiquitin chains as post-translational protein modifiers	(PS44-2) Boris Dzikovski Microsecond Exchange Processes Studied by Two-Dimensional ESR at 95 GHz (12:25-12:45 JST)	(PS45-2*) Dennis W. Hwang Glucose Metabolism in Mice Brain Tumor by Dynamical Glucose Enhanced imaging										
20:50	23:50	05:50	11:50	12:50	(PS43-3) Lukasz Jaremko Dynamic Structural Biology Of Gain-Of-Function Cancer-Driving Mutations Of Lysine Methyltransferases In The Nucleosomal Context	(PS44-3) Benjamin Fortman Demonstration of NV-detected NMR spectroscopy at 8.3 Tesla	(PS45-3) Johnny Chen MRI Detection of Hepatic N-Acetylcysteine Uptake in Mice via Thiol-Water Proton Exchange Contrast										

Time Zone					August 26 (Thu)		
21:10	24:10	06:10	12:10	13:10	(PS43-4) Fangrong Zhang Global analysis of protein arginine methylation	(PS44-4) Thomas Schmidt Sidespecific Protonation Assisted Assignment Of Protein Conformation By Double Electron-Electron EPR Spectroscopy	(PS45-4) Shingo Matsumoto Parahydrogen-induced Hyperpolarization of ¹³ C Fumarate and Application to Necrotic Cell Death Imaging in Hepatitis Mice
21:30	24:30	06:30	12:30	13:30			
Break							
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)		
21:40	24:40	06:40	12:40	13:40	Plenary Lecture 7 Chairs: Rachel W Martin Kazuma Gotoh (PL-7) Gillian R. Goward Magnetic Resonance Spectroscopy and T ₁ /T ₂ Relaxation Studies of Electrochemical Processes in Lithium-Ion Batteries		
22:25	01:25	07:25	13:25	14:25			
Break							
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Meetings)		
22:35	01:35	07:35	13:35	14:35	Mixing time		
23:20	02:20	08:20	14:20	15:20	Plenary Lecture 7 [Goward]		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
22:35	01:35	07:35	13:35	14:35	Mixing time PS43 [SOL]	Mixing time PS44 [EPR]	Mixing time PS45 [MRI]
23:20	02:20	08:20	14:20	15:20			
Break							
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
<small>JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time</small>					PS46 Applications to complex systems [SOL] Chairs: Jun Kikuchi Masaki Mishima	PS47 DEER 2 [EPR] Chairs: Hiroyuki Mino Hiroki Nagashima	PS48 Human body & disease [MRI] Chairs: Hiroshi Hirata Yoshiteru Seo
03:00	06:00	12:00	18:00	19:00	(PS46-1*) Yutaka Ito Solution NMR Approaches to Investigating Protein Behaviours under Intracellular Crowding Environments	(PS47-1*) Janet E. Lovett Notes From The Frontline Of DEER And RIDME Applications	(PS48-1*) Lucio Frydman In vivo Metabolic Imaging Based on the NMR spectroscopy of Low- γ Nuclides: Emerging Opportunities and Challenges
03:25	06:25	12:25	18:25	19:25	(PS46-2) Javier A. Romer Fast Acquisition of 2D NMR Titration Data with Non-Stationary Complementary Non-Uniform Sampling (NOSCO-NUS) (19:25-19:45 JST)	(PS47-2) Laura Galazzo Caught in the cell: the wide-open conformation of Msba in <i>E. coli</i> (19:25-19:45 JST)	(PS48-2*) Xin Zhou Damaged Lung Gas Exchange Function of Discharged COVID-19 Patients Detected by Hyperpolarized ¹²⁹ Xe MRI
03:50	06:50	12:50	18:50	19:50	(PS46-3) Raphael Stoll NMR-based structural insights into photosystem II assembly	(PS47-3) Yun-Wei Chiang Calcium Transporter Protein YetJ in Nanodiscs by ESR Spectroscopy	(PS48-3*) Periannan Kuppusamy Phase-1 Clinical Trial using EPR Oximetry with OxyChip Establishes Feasibility and Potential Utility of Repeated Measurements of Tumor Oxygen (19:50-20:15 JST)
04:10	07:10	13:10	19:10	20:10	(PS46-4) Akihiro Maeno Real-time high-pressure NMR observation of dipicolinic acid leakage: A crucial step for inactivation of bacterial spore	(PS47-4) Toshiaki Arata Structural dynamics of epi-genome related heterochromatin protein HP1 as studied by spin labeling EPR spectroscopy	(PS48-4*) Melinda J Duer Heavy Mice and Lighter Things: Using Solid-State NMR Spectroscopy to Understand Biological Tissues in Health and Disease (20:15-20:40 JST)
04:30	07:30	13:30	19:30	20:30			
Break							

Time Zone					August 26 (Thu)		
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 1 (Zoom Webinar)		
04:40	07:40	13:40	19:40	20:40	Plenary Lecture 8 Chairs: Yoshitaka Ishii Yoh Matsuki (PL-8) Clare P. Grey New NMR Approaches to Study Electrochemical Systems: From Conventional to Redox Flow Batteries to Gated Electronics		
05:25	08:25	14:25	20:25	21:25	Break		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
<small>JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time</small>					PS49 Nucleic acids [SOL] Chairs: Gota Kawai Taiichi Sakamoto	PS50 DEER 3 [EPR] Chairs: Yasuhiro Kobori Hiroki Nagashima	PS51 Electron/nuclear systems [HYP] Chairs: Kazunobu Sato Seitaro Mitsudo
05:35	08:35	14:35	20:35	21:35	(PS49-1*) Judith Schlagnitweit NMR for RNAs – in-vitro to in-cell	(PS50-1*) Daniella Goldfarb Expanding the scope of EPR distance measurements using hetero-spin labelling	(PS51-1*) Vladimir Dyakonov Spin Defects in hexagonal Boron Nitride
06:00	09:00	15:00	21:00	22:00	(PS49-2*) Hashim Al-Hashimi DNA-dynamics-driven mutagenesis: How DNA directs its own copying errors	(PS50-2) Maxie M. Roessler Functional basis of electron transport within photosynthetic complex I <i>(22:00-22:20 JST)</i>	(PS51-2*) Ilya Kuprov Neural nets in Magnetic Resonance: how do they actually work?
06:25	09:25	15:25	21:25	22:25	(PS49-3) Mandar V. Deshmukh Structural insights of RNA mediated gene regulation in plants and higher eukaryotes	(PS50-3) Yury Kutin Probing Mixed Duplex/Quadruplex DNA Structures via Cu ^{II} -Labeling	(PS51-3*) Andreas J. Heinrich Electron Spin Resonance of Individual Spins on a Surface <i>(22:25-22:50 JST)</i>
06:45	09:45	15:45	21:45	22:45	(PS49-4) Takashi Nagata Analysis of Structure and Dynamics of Oligonucleotides in Living Human Cells	(PS50-4) Graham Smith High Concentration Sensitivity PELDOR	(PS51-4) Kenji Sugisaki Development of a quantum algorithm for the direct calculation of the Heisenberg exchange coupling parameter <i>J</i> <i>(22:50-23:10 JST)</i>
07:05	10:05	16:05	22:05	23:05	Plenary Channel 2 (Zoom Webinar)		
PDT	EDT	CEST	CST MYT	JST	Plenary Channel 2 (Zoom Webinar)		
07:05	10:05	16:05	22:05	23:05	Mixing time		
07:50	10:50	16:50	22:50	23:50	Plenary Lecture 8 [Grey]		
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)
07:05	10:05	16:05	22:05	23:05	Mixing time PS46 [SOL] PS49 [SOL]	Mixing time PS47 [EPR] PS50 [EPR]	Mixing time PS48 [MRI] (23:05-23:50 JST) PS51 [HYP] (23:10-23:55 JST)
07:50	10:50	16:50	22:50	23:50			

Time Zone					August 27 (Fri)														
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)	Parallel Channel 2 (Zoom Meetings)	Parallel Channel 3 (Zoom Meetings)												
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					PS52 Advanced solution NMR methods [SOL] Chairs: Hideo Takahashi Ryo Kitahara					PS53 Material science 2 [EPR] Chairs: Kazuhiro Marumoto Tomoaki Miura					PS54 Tissue & tumor [MRI] Chairs: Yoshiteru Seo Shingo Matsumoto				
Aug 26																			
15:00	18:00	24:00	06:00	07:00	(PS52-1*) William S. Price Increasing the Speed and Efficiency of NMR Diffusion Measurements	(PS53-1*) Christoph Boehme Spin-based Quantum Sensing with Electronic Excitations in Organic Semiconductors	(PS54-1*) Dan Ma MR Fingerprinting for Efficient and Reproducible Quantitative Imaging												
15:25	18:25	24:25	06:25	07:25	(PS52-2*) Amnon Bar-Shir <i>In-Situ</i> NMR Reveals Inorganic Nanocrystal Growth Mechanisms towards their Development as Functional Materials	(PS53-2) Jonathan R. Woodward Next generation magnetic field effect fluorescence microscopy: toward applications in nanoscience and life science <i>(07:25-07:45 JST)</i>	(PS54-2*) Fuminori Hyodo Dynamic Nuclear Polarization (DNP) MRI for imaging tissue metabolism Application of dissolution DNP and <i>in vivo</i> DNP to animal disease models												
15:50	18:50	24:50	06:50	07:50	(PS52-3) Kazuyuki Akasaka Pressure as NMR Signal Enhancer in Aqueous Biomolecular Systems	(PS53-3) Shreya Ghosh Combination of MD and EPR on Copper-Based DNA Spin Label Allows Reporting on DNA Backbone Distance Constraints	(PS54-3) San-Yuan Dong 3D Shape Quantification of Gadoteric Acid-enhanced MRI Helps Predict Microvascular Invasion of Small Hepatocellular Carcinoma ≤ 3 cm												
16:10	19:10	01:10	07:10	08:10	Break														
					Plenary Channel 1 (Zoom Webinar)														
16:20	19:20	01:20	07:20	08:20	Plenary Lecture 9 Chairs: Madhu Kovilkathu Perunthiruthy Akira Naito (PL-9) Mei Hong Structure & Dynamics of Viral and Bacterial Ion Channels and Transporters														
17:05	20:05	02:05	08:05	09:05	Plenary Lecture 10 Chairs: Raymond Stanley Norton Noritaka Nishida (PL-10) Ichio Shimada Function-related Dynamics of GPCRs														
17:50	20:50	02:50	08:50	09:50	Closing Chair: Toshikazu Nakamura Songi Han Chair of the IES/SEST Poster Awards Akira Naito Chair of the JEOL/Taiyo-Nippon-Sanso/AP-NMR Poster Awards Akira Naito Te Danny Hsu Closing Remarks (APNMR) Toshimichi Fujiwara Paul Gooley Closing Remarks (ISMAR)														
18:25	21:25	03:25	09:25	10:25	Break														

Time Zone					August 27 (Fri)
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					60th Annual Meeting of the Nuclear Magnetic Resonance Society of Japan (NMRSJ 2021)
Aug 26					
19:00	22:00	04:00	10:00	11:00	Opening Masato Katahira
					Japanese Oral Session 1 Chairs: Makoto Demura Ryo Kitahara
19:10	22:10	04:10	10:10	11:10	(JS-1) Izuru Ohki Micron-scale high-resolution NMR spectroscopy using Nitrogen-Vacancy centers in diamond
19:30	22:30	04:30	10:30	11:30	(JS-2) Taiichi Sakamoto NMR Analysis of Interaction between Artificial Peptides and RNAs Derived from HIV-1 Rev and RRE RNA
19:50	22:50	04:50	10:50	11:50	(JS-3) Sui Arikawa Structure of Retinal Chromophore in TAT Rhodopsin as Studied by Solid-state NMR
20:10	23:10	05:10	11:10	12:10	(JS-4) Maiki Tamura Structure and dynamics of LaIT2, a toxic peptide, from Japanese scorpion, <i>Liocheles australasiae</i>
20:30	23:30	05:30	11:30	12:30	
					Break
					Japanese Oral Session 2 Chairs: Atsushi Asano Chojiro Kojima
21:30	24:30	06:30	12:30	13:30	(JS-5) Susumu Sasaki Anomalous behaviour of spin echoes in liquids with "quantum-pulse" sequences
21:50	24:50	06:50	12:50	13:50	(JS-6) Gota Kawai Influence of the 5'-terminal sequences on the 5'-UTR structure of the HIV-1 genomic RNA
22:10	01:10	07:10	13:10	14:10	(JS-7) Ayako Egawa Structural Analysis of Amorphous Curcumin Formulations by Solid-State NMR
22:30	01:30	07:30	13:30	14:30	(JS-8) Masaki Mishima NMR studies of the photochromic green/red photocycle of the chromatic acclimation sensor RcaE
22:50	01:50	07:50	13:50	14:50	
					Break

Time Zone					August 27 (Fri)
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 2 (Zoom Meetings)
JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time					60th Annual Meeting of the Society of Electron Spin Science and Technology (SEST 2021)
Aug 26					
20:30	23:30	05:30	11:30	12:30	Membership assembly** Awards ceremony** (***) Membership only
21:50	24:50	06:50	12:50	13:50	
					Break
					SEST Award Lecture Chair: Kiminori Maeda
22:00	01:00	07:00	13:00	14:00	(SEST-1) Tadaaki Ikoma Magnetic Structure and Spin Dynamics of Excited States in Molecular Materials
					SEST Young Investigator Award Lecture Chair: Ko Furukawa
22:40	01:40	07:40	13:40	14:40	(SEST-2) Yusuke Wakikawa Spin Dynamics of Charge Carriers and Excitons in Organic Semiconductor Materials and Devices
					SEST Young Investigator Award Lecture Chair: Kiminori Maeda
23:00	02:00	08:00	14:00	15:00	(SEST-3) Hiroki Nagashima Distance Measurements between Spins and Elucidation of Structures Surrounding Electron Spin by Electron Spin Resonance
23:20	02:20	08:20	14:20	15:20	
23:30	02:30	08:30	14:30	15:30	Closing Remarks Osamu Inanami

Time Zone					August 27 (Fri)
PDT	EDT	CEST	CST MYT	JST	Parallel Channel 1 (Zoom Meetings)
<small>JST: Japan Standard Time CST: China Standard Time MYT: Malaysia Time CEST: Central European Summer Time EDT: Eastern Daylight Time PDT: Pacific Daylight Time</small>					Progress Award Lecture Chairs: Toshimichi Fujiwara Yutaka Ito
23:00	02:00	08:00	14:00	15:00	(PA-1) Ayako Furukawa Elucidation of the mechanism of dynamic interactions between nucleic acids and proteins using solution NMR
23:40	02:40	08:40	14:40	15:40	(PA-2) Noritaka Nishida Real-time observation of intracellular biological events using in-cell NMR
24:20	03:20	09:20	15:20	16:20	
					Break
					Honorary Lecture Chairs: Takahisa Ikegami Gota Kawai
24:30	03:30	09:30	15:30	16:30	(HL-1) Yasuhiko Yamamoto Interaction between Tetrapyrrole Macrocycles and Quadruplex Nucleic Acids
01:25	04:25	10:25	16:25	17:25	Introduction of the Next Annual Meeting Kazuhiko Yamada
01:35	04:35	10:35	16:35	17:35	Closing Masato Katahira
01:40	04:40	10:40	16:40	17:40	