APES-IES-SEST2014 Scientific Program

November 12 (Wed)			
	Kinsho Hall (1F)		Small Hall (B1F)
11:00~18:00	Registration		
13:00~13:15	Opening of APES-IES-SEST 2014		
13:15~14:00	**(PL-1) Klaus Möbius** Magic Matrix Effects on Protein Dynamics Decoded by High-Field EPR (Chair: T. Ikoma)		
14:00~14:45	**(PL-2) Masaki Oshikawa** Recent Progress in Theory of ESR in Strongly Correlated Spin Systems (Chair: H. Kikuchi)		
14:45~15:10	Break		
15:10~15:55	**(PL-3) Graham Smith** Very High Sensitivity Orientational PELDOR (Chair: H. Ohta)		
	SEST Excellent Presentation Award Competition (Chair: T. Nakamura)		
15:55~16:15	**(SEST EPA-1)** **Fatma Elmasry** Er-concentration and charge carrier effects on GaAs;Er,O revealed by X-band ESR		
16:15~16:35	**(SEST EPA-2)** **Hiroki Nagashima** ENDOR Studies on Relationship between the Hydrogen Bonding Network and Ca^{2+} of the Mn Cluster in Photosystem II		
16:35~16:55	**(SEST EPA-3)** **Yuta Matsuoka** Development of fluorescent probe for sensitive detection of ascorbic acid		

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16:55~17:15	**(SEST EPA-4)** **Zhebin Fu** Time-Resolved EPR and Photochemical Study on the Inclusion System of Anthraquinones and Cyclodextrins		
17:15~17:35	**(SEST EPA-5)** **Takuya Omori** Magnetoconductance of Pentacene/C60-bilayaer Solar Cell		
17:35~18:00	Morino Foundation Presentation Noboru Hirota		
18:00-18:30	Move to Nara Women's University (about 15 minutes' walk)		
18:30-20:30	**Welcome Reception** (Nara Women's University)		

November 13 (Thu)			
	Kinsho Hall (1F)		Small Hall (B1F)
9:00~9:45	**(PL-4)** **Elena Bagryanskaya** The New Spin Probes for Biochemical Applications (Chair: Y. Kobori)		
9:45~10:10	Break		
	Session 1 **Spin Chemistry** (Chair: Y. Kobori)		**Session 2** **Dosimetry & Dating** (Chair: C. Yamanaka)
10:10~10:15	Opening	10:10~10:15	Opening
10:15~10:50	**(IL-1) Wolfgang Lubitz** The Spin as Functional Probe in Metal Biocatalysis	10:15~10:50	**(IL-3) Gamal Mohamed Hassan** Development of EPR Dosimetry from Micro to Nano-materials
10:50~11:25	**(IL-2) Michael R. Wasielewski** Progress Toward Spin Teleportation: Reversible Photo-driven Reduction of a Stable BDPA Radical	10:50~11:20	**(IL-4) Masashi Takada** Application of ESR in Quaternary geological dating

November 13 (Thu)			
11:25~11:45	**(OP-1) Hirona Takahashi** Photoinitiated Radical Polymerization of Silane Coupling Agents as Studied by Pulsed EPR Spectroscopy	11:20~11:40	**(OP-3) Atsushi Tani** Diagnostic of Reactive Oxygen Species (ROS) Induced in Water by Atmospheric Pressure Plasma for Plasma-based Sterilization
11:45~12:05	**(OP-2) Motoko S. Asano** Substituent Dependence of Relaxation Processes in the Excited State of Vanadyl Porphyrins : Time-resolved EPR and Luminescence Study	11:40~12:00	**(OP-4) Kouichi Nakagawa** Effects of 0.10−10 Gy X-ray Irradiation on Eggshell Radical Production
12:05~13:30	Lunch		
13:30~14:15	Harden M McConnell Memorial Lecture **(PL-5) Lawrence J. Berliner** Harden M. McConnell - the Life of a Giant in Magnetic Resonance (Chair: K. Ichikawa)		
14:15~14:25	Break		
	Session 3 Quantum Spin System (Chair: H. Kikuchi, H. Nojiri)		**Session 4 *In vivo* Imaging** (Chair: K. Ichikawa)
14:25~14:30	Opening	14:25~14:30	Opening
14:30~15:05	**(IL-5) Vladislav Kataev** Probing the Spin Dynamics in Novel Iridium Oxides by sub-THz ESR	14:30~15:05	**(IL-7) Noppawan P. Morales** Application of ESR/Spin Trapping for Monitoring Free Radical Formation in Serum of β−Thalassemia with Iron Chelation Therapy
15:05~15:35	**(IL-6) Yuko Hosokoshi** Organic Radical Approach to Quantum Spin Systems	15:05~15:40	**(IL-8) Howard J. Halpern** Enhancing cancer treatment in animal models with near absolute O_2 imaging using longitudinal relaxation rate (R_{1e}) with pulse EPR
15:35~15:55	**(OP-5) Toru Sakai** Singlet-Triplet Transitions of ESR in Gapped Spin Systems	15:40~16:00	**(OP-7) Håkan Gustafsson** Electron paramagnetic resonance (EPR) oximetry as a future diagnostic tool for head and neck cancer

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15:55~16:15	**(OP-6) Sergey Vasiliev** High-field ESR and nuclear polarization of P donors in silicon at ultra-low temperatures	16:00~16:20	**(OP-8) Hiroshi Hirata** *In vivo* imaging of nitroxyl radicals in a mouse using surface coil array and parallel EPR detection
16:20~16:45	Break		
	APES Young Scientist Award (Chair: Yong Li)		
16:45~17:10	**(APES YSA-1) Fazhan Shi** Nanoscale magnetic resonance with single electron spin sensor under ambient conditions		
17:10~17:35	**(APES YSA-2) Toshihide Yamasaki** Towards the structural design of piperidine nitroxides for in vivo measurement probe		
17:35~18:10	APES General Meeting		
18:10~18:30	Move to Nara Prefectural New Public Hall (5 minutes' walk)		
18:30~20:30	Bruker Seminar (Nara Prefectural New Public Hall)		

November 14 (Fri)			
	Kinsho Hall (1F)		Small Hall (B1F)
9:00~9:45	**(PL-6) Thomas F. Prisner** Overhauser Dynamic Nuclear Polarization at a Magnetic Field of 9.2 T (Chair: T. Fujiwara)		
9:45~10:30	**(PL-7) Jack H. Freed** Protein Dynamic Structure Revealed by High Sensitivity Pulse Dipolar ESR Distance Measurements (Chair: T. Arata)		
10:30~10:55	Break		
	Session 5 **DNP** (Chair: T. Fujiwara)		**Session 6** **Photo Synthesis & Protein Distance Measurement** (Chair: H. Mino, T. Arata)

10:55~11:00	Opening	10:55~11:00	Opening
November 14 (Fri)			
11:00~11:35	**(IL-9) Songi Han** Surface characterization by dynamic nuclear polarization NMR	11:00~11:35	**(IL-11) Christopher Kay** Using pulsed and continuous-wave EPR spectroscopy in combination with X-ray crystallography to understand the structure and function of biomolecular machines
11:35~12:10	**(IL-10) Akiva Feintuch** The interplay between spectral diffusion and dynamic nuclear polarization	11:35~12:10	**(IL-12) Louise J Brown** Constructing a dynamic picture of Troponin from site directed spin labeling
12:10~12:30	**(OP-9) Makoto Negoro** Toward applications of DNP using photo-excited triplet electrons	12:10~12:40	**(IL-13) Hideto Matsuoka** Excited Triplet States of Thiophene-Decorated Phenazines Probed by Time-Resolved EPR
12:30~12:50	**(OP-10) Yoh Matsuki** Dynamic Nuclear Polarization for Biological Solid-State NMR at High Fields and Low Temperatures	12:40~13:00	**(OP-11) Wolfgang E.Trommer** Maltose Binding Protein as Molten Globule and in the Native State
12:50~14:00	Lunch		
14:00~15:00	SEST General Meeting SEST Award and SEST Young Investigator Award Ceremony		
	SEST Award and SEST Young Investigator Award Session		
15:00~15:40	SEST Award **(SEST AL-1) Shin-ichi Kuroda** Electron Spin Resonance Studies of Organic Electronic Materials and Devices (Chair: K. Marumoto)		
15:40~16:20	SEST Award **(SEST AL-2) Hirotada Fujii** *In Vivo* EPR Imaging Studies of a Brain Disease Mouse Model (Chair: O. Inanami)		

November 14 (Fri)			
16:20~16:45	SEST Young Investigator Award **(SEST AL-3)Yugo Oshima** High-frequency ESR Studies of Molecule-based Conductors and Magnets (Chair: H. Ohta)		
16:45~17:10	SEST Young Investigator Award **(SEST AL-4) Tomoaki Yago** Time-Resolved Spectroscopic Study on Paramagnetic Intermediates Generated by Photochemical Reactions (Chair: T. Ikoma)		
17:10~17:30	Move to Nara Prefectural New Public Hall (5 minutes' walk)		
17:30~19:25	**Poster Session** (Nara Prefectural New Public Hall)		
19:40~21:40	SEST-APES Young Scientists Meeting (Nara Women's University)		

November 15 (Sat)			
	Kinsho Hall (1F)		Small Hall (B1F)
9:00~9:55	IES General Meeting IES Award Ceremony		
9:55~10:30	IES Gold Medal **(IES AL-1) R. David Britt** EPR Investigations of Photosynthetic and Bioenergy-Related Enzymes (Chair: K. Möbius)		
10:30~10:55	Break		
	Session 7 **IES Award Session** (Chair: L. Berliner)		**Session 8** **Instrumentation** (Chair: H. Hirata)
10:55~11:30	IES Fellow **(IES AL-2) Kev M. Salikhov** Recent Development of the PELDOR Theory	10:55~11:00	Opening

November 15 (Sat)			
11:30~11:55	IES Silver Medal **(IES AL-3) Stephen Hill** Ferromagnetic Resonance Studies of Spin-Orbit Effects in Heavy Atom Organic Radical Ferromagnets	11:00~11:35	**(IL-14) Aharon Blank** Biological Applications of High Sensitivity Electron Spin Resonance with High Spatial Resolution
11:55~12:20	IES Silver Medal **(IES AL-4) Johan van Tol** Quasi-Optical Pulsed EPR and ENDOR at very high Frequencies	11:35~12:05	**(IL-15) Shingo Matsumoto** Development and Applications of Pulsed EPR Oxygen Imaging in Cancer Research
12:20~12:40	John Weil Young Investigator Award **(IES AL-5) Nicholas Cox** The structure of nature's water splitting catalyst prior to O-O bond formation: an EPR and DFT study	12:05~12:25	**(OP-12) Seitaro Mitsudo** High power Nanosecond Pulse Generation for the Pulsed ESR by using a Gyrotron as a Radiation Source
12:40~13:00	IES Young Investigator Award **(IES AL-6) Tomoaki Miura** Dynamic and Electronic Characteristics of Photo-generated Radical Pairs Revealed by Real-time Observation of the Spin Dynamics	12:25~12:45	**(OP-13) Dane R. McCamey** Spectroscopic Investigation of Spin-Dependent Optoelectronic Pathways in Organic Devices
13:00~19:00	**Excursion** (Sandwich lunch for bus tour participants)		
19:00~21:00	**Banquet** (Restaurant Half Time at Nara National Museum)		

November 16 (Sun)			
	Kinsho Hall (1F)		Small Hall (B1F)
9:00~9:45	**(PL-8) Harold M. Swartz** Clinical Applications of EPR (Chair: H. Hirata)		
9:45~10:10	Break		
	Session 9 **Biology** (Chair: O. Inanami)		**Session 10** **Quantum Computing** (Chair: K. Sato)
10:10~10:15	Opening	10:10~10:15	Opening

November 16 (Sun)			
10:15~10:50	**(IL-16) Graeme R. Hanson** Insights into CO_2 Fixation, Global Warming and Healthy Coral Reefs	10:15~10:50	**(IL-18) J. Wrachtrup** Building up a synthetic quantum system spin by spin
10:50~11:25	**(IL-17) Jay L. Zweier** *In vivo* EPR/NMR Coimaging of Radical Probes: Advances and Challenges	10:50~11:25	**(IL-19) Jiangfeng Du** Quantum Computation and Quantum Sensing based on Single Electron Spin in Diamond
11:25~11:45	**(OP-14) Masaki Horitani** New Approach to ENDOR Analysis for Manganese(II)-Substituted Soybean Lipoxygenase with A Non-Coordinated Substrate	11:25~11:50	**(IL-20) Gerd Kothe** Nuclear Hyperpolarization and Spin Entanglement in Phosphorescent Crystals at Level Anti-crossing Conditions
11:45~12:05	**(OP-15) Catharina T. Migita** EPR elucidation of bacterial terminal oxidase building in multi-heme centers	11:50~12:10	**(OP-16) Robabeh Rahimi Darabad** Exploiting Quantum Effects Using Electron-Nuclear Coupled Molecular Spin Systems
12:05~13:30	Lunch		
	Session 11 **Material Science, Electric Devices, Spintronics** (Chair:T. Ikoma, S. Kuroda)		**Session 12** **Free Radicals and Theory** (Chair: K. Tajima)
13:30~13:35	Opening	13:30~13:35	Opening
13:35~14:10	**(IL-21) Christpher E. Ambe** Magnetoconductance in Photoconductive Thin Films of Perylene Bisimide	13:35~14:10	**(IL-23) Yong Li** ESR Study on Mechanism of Photocatalytic Synthesis of Phenols without Photosensitizer
14:10~14:40	**(IL-22) Kazuhiro Marumoto** Development of New Analytical Methods for Organic Devices: Applications of ESR to Transistors, Solar Cells and Light-Emitting Diodes	14:10~14:45	**(IL-24) Sergei A. Dzuba** Interaction of Cryoprotective Agents with Biological Membranes Studied by Pulsed EPR of Spin Labels

November 16 (Sun)			
14:40~15:00	**(OP-17) Yasuhiro Kobori** Electron-Hole Dissociations and Electronic Coupling Influenced by Alkyl Side Chains in the Photovoltaic Polyalkylthiophene:PCBM Interface	14:45~15:10	**(IL-25) Tatyana I. Smirnova** Dielectric Constant and Water Penetration Gradients along Transmembrane Peptide-Lipid Bilayer Interface
15:00~15:20	**(OP-18) Takayuki Ishida** Evaluation of Dysprosium(III)-Copper(II) Exchange Coupling Parameters and Relation with the Bridging Geometry	15:10~15:30	**(OP-19) Czesław Rudowicz** EMR related problems in modeling properties of single-ion and single-molecule magnets (SIM/SMM) - interplay between the crucial notions
15:30~16:00	**Closing** APES Young Scientist Award Ceremony SEST Excellent Presentation Award Ceremony APES, IES Poster Award Ceremony Closing Remarks		