

# JSPS Core-to-Core Japan Workshop 2018

## Nanoscale electron-photon interactions via energy dissipation and fluctuation

Venue: Koshiba Hall, The University of Tokyo

Date: July 5-6, 2018

### July 5

11:30	13:00	Core Member Meeting (Koshiba Hall Meeting Room)	
Opening session (Koshiba Hall 2F) Chair: Prof. H. Tabta			
13:30	13:35	Program Director: H. Tabata (University of Tokyo)	
13:35	13:40	Dean of School of Engineering: T. Ohkubo (University of Tokyo)	
13:40	13:45	Head of Research Cooperation Division: R. Hamada (JSPS)	
Session 1 (Koshiba Hall) Chair: Prof. L. Thylén			
13:45	14:25	J. Butet (EPFL)	Controlling the second harmonic light from plasmonic nanostructures
14:25	14:45	Y. Ikuhara (University of Tokyo)	Interface Atomic Structures and Dynamics of Li-ion Battery Materials
14:45	15:00	BREAK	
Memorial session for Prof. Katsuyuki Nobusada			
15:00	15:20	K. Iida (Institute for Molecular Science)	Control of Photoinduced Electron Transfer in MoS <sub>2</sub> -Graphene Heterostructure by Applied Bias Voltage
15:20	16:00	L. Thylén (KTH)	Power Hungry Data Centers, Integrated Nanophotonics, Some Required Novel Photonics Materials and Possible Integration with Post Moore Electronics
16:00	16:20	T. Yatsui (University of Tokyo)	Novel chemical reactions using a non-uniform optical field
16:30	18:30	Poster session (Room 1A-C, Eng. Bldg. 2)	
18:00	20:00	Banquet (Room 1A-C, Eng. Bld. 2)	

### July 6

Session 3 (Koshiba Hall) Chair: Prof. T. Saiki			
9:30	9:50	T. Iwasaki (Tokyo Institute of Technology)	Quantum Technologies Based on Spin Defects in Diamond
9:50	10:30	F. Jelezko (University of Ulm)	Photoelectrical readout of single spins in diamond
10:30	10:50	K.T.Yong (Nanyang Technological University)	Functional Nanomaterials for Plasmonic Sensing
10:50	11:05	BREAK	
Session 4 (Koshiba Hall) Chair: Prof. B. Vilquin			
11:05	11:45	G. Koster (University of Twente)	Controlled properties in oxide heterostructures by interface-engineered oxygen octahedral coupling
11:45	12:05	M. Hara (Tokyo Institute of Technology)	TBA
Lunch (Restaurant Matsumoto, Univ. of Tokyo)			
Session 5 (Koshiba Hall) Chair: Prof. J. Butet			
14:00	14:40	S. Huant (Institut NEEL)	Plasmonics under optical tips and STM tips
14:40	15:00	N. Chauvet (Institut NEEL)	Entangled Photons, a New Resource for Social Decision Making
15:00	15:20	M. Naruse (NICT)	Transform Single Photons to Ultrafast Decision Making
15:20	15:35	BREAK	
Session 6 (Koshiba Hall) Chair: Prof. G. Koster			
15:35	16:15	B. Vilquin (Ecole Centrale de Lyon)	Functional oxide thin films for nanoelectronic and energy harvesting
16:15	16:35	T. Saiki (Keio University)	Nano-optical and fluidic implementation of swarm intelligence
16:35	16:55	J.-J. Delaunay (University of Tokyo)	Narrow-band thermal emitter by coupling of cavity and Tamm plasmon resonances
16:55	17:00	Closing Remark: H. Tabata (University of Tokyo)	
17:30	20:00	Dinner (Restaurant Camellia, Univ. of Tokyo)	