KINKEN-KIST joint symposium 2018
Auditorium, Institute for Materials Research, Tohoku University, Japan
July 4 (Wed) - 5 (Thu), 2018

July 3 (Tue)
Hotel check-in (KIST members) Hotel Bel Air Sendai (2 min. walk from IMR) or other hotels
(Group booking by IMR office)

July 4 (Wed)
9:30-10:00 Registration
10:00-10:15 Opening remarks, Koki Takanashi (IMR)
10:15-10:30 Introduction of PSI and KIST, Joonyeon Chang (PSI, KIST)

Session 1. Spintronics I
10:30-11:00 "Current-driven creation, translation, and annihilation of ferromagnetic skyrmions observed by scanning transmission X-ray microscopy"
   Jun Woo Choi (Center for Electronic Materials, PSI, KIST)
11:00-11:30 “Nonreciprocal propagation of electromagnetic waves, magnons, and acoustic waves in multiferroics”
   Yoshifumi Onose (Physics of Crystal Defects Lab., IMR)
11:30-12:00 “Spintronics phenomena in topological semimetals”
   Kentaro Nomura (Theory of Solid State Physics, IMR)
12:00-13:30 Lunch (Group Photo)

Session 2. Electronic materials
13:30-14:00 "Simple and scalable artificial neuron based on Ovonic Threshold Switch (OTS)"
   Suyoun Lee, (Center for Electronic Materials, PSI, KIST)
14:00-14:30 "Microfabrication of functional thin films using LaAlO₃/BaOₓ water-soluble sacrificial templates”
   Takayuki Harada (Low Temperature Physics Lab., IMR)
14:30-15:00 "Complex hydrides for all solid-state battery electrolytes”
   Sangryun Kim (Hydrogen Functional Materials, IMR)
15:00-15:30 Break
Session 3. Devices and microstructure materials
15:30-16:00 “Three-dimensional organic field - Effect transistors based on self-organization of organic semiconductor: Insulating polymer blends”
   Jung Ah Lim (Center for Opto-Electronic Materials and Devices Research, PSI, KIST)
16:00-16:30 “Temperature effect on the microstructure of FeCo porous produced by liquid metal dealloying: its long-range ordering and transformation behavior”
   Soo-Hyun, Joo (Non-Equilibrium Materials, IMR)
16:30-17:00 “Quantum phase transition in Electric-field-induced 2D superconductors”
   Tsutomu Nojima (Laboratory of Low Temperature Materials Science, IMR)

Reception

July 5 (Thu)
Session 4. Spintronics II
9:00-9:30 “Transmission line model for materials with Spin - Momentum locking”
   Seokmin Hong (Center for Electronic Materials, PSI, KIST)
9:30-10:00 “Spin Hall effect in metallic layered structures”
   Takeshi Seki (Magnetic Materials Lab., IMR)
10:00-10:30 “Control of spin caloritronic effects in nanostructured materials”
   Masaki Mizuguchi (Collaborative Research Center on Energy Materials, IMR)
10:30-1050 break

Session 5. Semiconductor Devices
10:50-11:20 “Low dimensional nanostructured semiconductors for electronic and optoelectronic device applications”
   Do Kyung Hwang (Center for Opto-Electronic Materials and Devices Research, KIST)
11:20-11:50 “GaN growth and blue LED on novel oxide substrate ScAlMgO₄”
   Shigeyuki Kuboya (Physics of Electronic Materials Lab., IMR)
11:50-12:00 Closing remarks, Joonyeon Chang (KIST) and Koki Takanashi (IMR)
12:00-13:30 Lunch

Lab tour (High magnetic field center, other labs and research centers)