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## The Yonsei-Todai Joint Workshop 2013

Sanjo Kaikan, 2F Conference Hall, University of Tokyo

February 19, 2013

Chair: Shuji Hasegawa (Univ. Tokyo)

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9:00-9:15 [Seiji Miyashita](#) (Chair of Dept. Phys., Univ. Tokyo)

*Welcome Address and Introduction to Dept. Phys., Univ. Tokyo*

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9:15-9:45 [Hyung Joon Choi](#) (Yonsei Univ.)

*Density functional study of the Rashba-type spin splitting for noble-metal surfaces*

9:45-10:10 [Teppei Yoshida](#) (Fujimori Group, Univ. Tokyo)

*Anisotropic superconducting gap in iron pnictide superconductor studied by ARPES*

10:10-10:30 [Wonsig Jung](#) (Yonsei Univ.)

*Complex orbital angular momentum modulation in momentum space in 4d transition metal oxides*

10:30-10:55 [Naoto Tsuji](#) (Aoki Group, Univ. Tokyo)

*Dynamical phase transition in strongly correlated fermion systems*

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10:55-11:10 Coffee Break (and Poster Preparation)

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Chair: Changyoung Kim (Yonsei Univ.)

11:10-11:40 [Nara Lee](#) (Yonsei Univ.)

*Giant Tunability of Ferroelectric Polarization in Multiferroic  $GdMn_2O_5$*

11:40-12:05 [Tomohiro Matsui](#) (Fukuyama Group, Univ. Tokyo)

*STM/S Observations of the Superconducting Nano-particles on Graphite*

12:05-12:35 [Young Jai Choi](#) (Yonsei Univ.)

*Giant Magnetic Fluctuations at the Critical Endpoint in Insulating  $HoMnO_3$*

12:35-13:00 [Ryuichi Masutomi](#) (Okamoto Group, Univ. Tokyo)

*Strongly correlated two-dimensional system and superconductivity in one atomic layer*

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13:00-14:30 Lunch (first 45 min) and Poster Session (latter 45 min)

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Chair: Seong-II Im (Yonsei Univ.)

14:30-14:55 [Yoshihiro Gohda](#) (Tsuneyuki Group, Univ. Tokyo)

*Computational design of nano/energy materials from first principles*

14:55-15:15 [Young Tack Lee](#) (Yonsei Univ.)

*Ferroelectric Nonvolatile Memory Circuit Device using Single ZnO Nanowire and ferroelectric polymer layer and Sn nano-particles*

15:15-15:40 [Hiroyasu Matsuura](#) (Ogata Group, Univ. Tokyo)

*Derivation of Dzyaloshinskii-Moriya Interaction in Metallic Chiral Magnet  $\text{CrNb}_3\text{S}_6$*

15:40-16:00 [Ju Hyoung Kim](#) (Yonsei Univ.)

*Detection of IFN- $\gamma$  for latent tuberculosis diagnosis using anodized aluminum oxide-based capacitance sensor*

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16:00-16:40 Coffee Break and Poster Session

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Chair: Atsushi Fujimori (Univ. Tokyo)

16:40-17:05 [Ryusuke Matsunaga](#) (Shimano Group, Univ. Tokyo)

*Terahertz pulse-induced superconducting-to-normal phase transition in NbN*

17:05-17:25 [Byung Cheol Park](#) (Yonsei Univ.)

*Terahertz Time-Domain Spectroscopy of Topological Insulator  $\text{Bi}_2\text{Se}_3$  Thin Films*

17:25-17:50 [Shinichirou Minemoto](#) (Sakai Group, Univ. Tokyo)

*Characteristics of high-order harmonics generated from atoms and aligned molecules with carrier-envelope-phase-stabilized femtosecond pulses*

17:50-18:20 [Seong-II Im](#) (Yonsei Univ.)

*Photo-Excited Charge Collection Spectroscopy (PECCS) as a Measurement Probe for the Electrical Stability of Field-Effect Transistors*

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18:20-18:30 [Changyoung Kim](#) (Yonsei Univ.)

*Closing Remarks*

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18:30-20:30 Banquet (1F Restaurant)

## Poster Presentations

1. [Jehoi Mun](#) (D1, Sakai Group, Univ. Tokyo)  
*Laser-field-free orientation of state-selected asymmetric top molecules*
2. [Byung Cheol Park](#) (Yonsei Univ.)  
*Terahertz Time-Domain Spectroscopy of Topological Insulator  $\text{Bi}_2\text{Se}_3$  Thin Films*
3. [Je-Yoon Yoo](#) (D2, Shimano group, Univ. Tokyo)  
*THz spectroscopy of photoexcited  $e$ - $h$  system in Ge under the uniaxial stress and strong magnetic field*
4. [Hee Sung Lee](#) (Yonsei Univ.)  
 *$\text{MoS}_2$  nanosheet-based device applications: Photo-transistors and nonvolatile memory transistors*
5. [Young Tack Lee](#) (Yonsei Univ.)  
*Ferroelectric Nonvolatile Memory Circuit Device using Single ZnO Nanowire and ferroelectric polymer layer and Sn nano-particles*
6. [Naoya Fukui](#) (M2, Hasegawa Group, Univ. Tokyo)  
*Micro-fabrication of ultrathin films by focused ion beam and in situ electric conduction measurement by 4-tip STM*
7. [Jun Ho Cha](#) (Yonsei Univ.)  
*Room temperature hydrogen sensor based on  $\text{SnO}_2$  nanowire co-deposited with Pd and Sn nanoparticles: Synergistic effects of Pd*
8. [Masaki Aitani](#) (M2, Hasegawa Group, Univ. Tokyo)  
*In situ magnetotransport measurements of ultrathin Bi films*
9. [Wonshik Kyung](#) (Yonsei Univ.)  
*Unresolved issues on  $k_z$  dependent electronic structure on  $\text{CaC}_6$*
10. [Leo Cristobal C. Ambolode II](#) (D2, Fujimori Group, Univ. Tokyo)  
*Evolution of the electronic structure of  $\text{Fe}(\text{Te},\text{Se})$*
11. [Won-Sig Jung](#) (Yonsei Univ.)  
*Complex orbital angular momentum modulation in momentum space of 4d metal oxides*
12. [Jian Xu](#) (D1, Fujimori Group, Univ. Tokyo)  
*Electronic Structure Around a Vortex Core in Iron Pnictide Superconductors*
13. [Ju Hyoung Kim](#) (Yonsei Univ.)  
*Detection of IFN- $\gamma$  for latent tuberculosis diagnosis using anodized aluminum oxide-based capacitance sensor*