

SSNS'19

Symposium on Surface and Nano Science 2019

Shizukuishi, January 14–18, 2019

Symposium Program

(The slot for each talk includes 3-5 min discussion after the talk.)

January 14 (Monday)

(16:30–18:00) Registration

(18:00–19:50) Opening & Welcome Dinner (Japanese)

Opening Remarks: Shuji Hasegawa

Memorial Session for Peter Varga (20:00–21:30) Chair : Karl-Heinz Ernst

1 (20:00–20:35)

Wolf-Dieter Schneider (Fritz-Haber-Institute of the Max-Planck-Society) (Invited)

“Spin-excitation spectroscopy reveals the magnetic moment of a single Ce-adatoms”

2 (20:35 - 21:10)

Friedrich Aumayr (TU Wien, Austria) (Invited)

“2D-Materials probed by slow highly charged ions”

3 (21:10 - 21:45)

Ulrike Diebold (TU Wien, Austria) (Invited)

“The (1x1) Surface Structure of Perovskite Oxides”

January 15 (Tuesday)

Session 1 (8:00 - 9:10), Chair: Han Woong Yeom

S1-1 (8:00 - 8:20)

Takashi Uchihashi (National Institute for Materials Science)

“Competition of Surface Structure Symmetries in Scanning Tunneling Microscopy Imaging”

S1-2 (8:20-8:50)

Thomas A. Jung (Molecular Nanoscience, Laboratory for Micro- and Nanotechnology Paul Scherrer Institute) (Invited)

“Condensed Matter Physics in a (Nano-) Nutshell: Phase transitions in nanometer sized confinements on surfaces”

S1-3 (8:50-9:10)

Jiro Matsuo (Kyoto University)

“Liquid Adsorption and Desorption measured with Ambient –SIMS”

(9:10–16:20) Free Discussion and Lunch

Session 2 (16:20 – 17:40), Chair: Hugo Dil

S2-1 (16:20 – 16:40)

Toyokazu Yamada (Chiba University Graduate School of Engineering)

“Soliton waves in a CO monolayer film”

S2-2 (16:40 – 17:10)

Martin Aeschlimann (University of Kaiserslautern, Germany) (Invited)

“A momentum space perspective of metal-organic hybrid interfaces”

S2-3 (17:10 – 17:40)

Han Woong Yeom (IBS-CALDES / POSTECH) (Invited)

“Topological excitations, defects, and adsorbates on 2D charge density wave systems”

(17:50 – 19:50) Dinner (Shabu-shabu)

Session 3 (20:00 - 21:20), Chair: Teruo Ono

S3-1 (20:00 - 20:30)

Geoff Thornton (University College London) (Invited)

“Polarons on TiO₂ and their affinity for water”

S3-2 (20:30-20:50)

Hung-Hsiang Yang (Institute for Solid State Physics, the University of Tokyo)

“Imaging Magnon Excitation on Nanoscale”

S3-3 (20:50-21:20) (Invited)

Hugo Dil (Ecole Polytechnique Fédérale de Lausanne)

“Bi-stable order in multiferroic (GeMn)Te”

January 16 (Wednesday)

Session 4 (8:00 - 9:10), Chair: Geoff Thornton

S4-1 (8:00 - 8:20)

Teruo Ono (Kyoto University)

“Ferrimagnetic spin-orbitronics”

S4-2 (8:20 - 8:50)

Thomas Greber (UZH, Switzerland) (Invited)

“Gd – a catalyst in a single molecule magnet”

S4-3 (8:50 - 9:10)

Ayahiko Ichimiya (Nagoya University)

“Total Reflection High-Energy Positron Diffraction: A powerful tool for crystal surface studies”

(9:10 – 16:00) Free Discussion and Lunch

Session 5 (16:10 – 17:40), Chair: Franz J. Giessibl

S5-1 (16:10 - 16:30)

Tadahiro Komeda (Institute of Multidisciplinary Research for Advanced Materials (IMRAM), Tohoku University)

“Photoresponse of Field Effect Transistor of MoS₂ with Molecule Doping on Channel”

S5-2 (16:30 -17:00)

Shangjr (Felix) Gwo (Department of Physics, National Tsing-Hua University) (Invited)

“Two-Dimensional Polariton Physics: Monolayer Semiconductors on Plasmonic Metasurfaces”

S5-3 (17:00 - 17:20)

Hirokazu Fukidome (Research Institute of Electrical Communication, Tohoku University)

“Spatial Control of Surface States of GaN-based Transistors by Using Electric Field”

S5-4 (17:20 - 17:40)

Quan Sun (Hokkaido University)

“Multi-Dimensional Characterization of Coupled Plasmonic Nanostructures by Photoemission Electron Microscopy”

(17:50 – 19:50) Dinner (Buffet at Prince Room)

Session 6 (20:00 - 21:20), Chair: Tadahiro Komeda

S6-1 (20:00-20:30)

Franz J. Giessibl (University of Regensburg) (Invited)

“Interatomic force laws that evade dynamic measurement”

S6-2 (20:30 - 20:50)

Shuji Hasegawa (University of Tokyo)

“Dissipation-less Currents at Atomic/Molecular Layers”

S6-3 (20:50 – 21:20)

Wolf Widdra (Halle University) (Invited)

“Phonons and dielectric properties of perovskite surfaces”

January 17 (Thursday)

Session 7 (8:00 -9:10), Chair: Junji Yuhara

S7-1 (8:00 - 8:20)

Fabio Donati (Ewha Womans University, IBS Center for Quantum Nanoscience)

“Spin dynamics of Ho single atom magnets”

S7-2 (8:20 – 8:40)

Yudai Sato (Institute of Solid State Physics, The University of Tokyo)

“Toward detection of ferromagnetic resonance of Co thin films on Cu(111) by radio-frequency scanning tunneling microscopy”

S7-3 (8:40 – 9:10)

Karl-Heinz Ernst (Empa, Swiss Federal Laboratories for Materials Science and Technology)
(Invited)

“Self-assembly and on-surface chemistry: mono-, bis-, and trishelices”

(9:10 – 16:00) Free Discussion and Lunch

Session 8 (16:10 – 17:40), Chair: Michael Altman

S8-1 (16:10 - 16:40)

Jungseok Chae (Center for Quantum Nanoscience) (Invited)

“Resolving surface phonons using scanning tunneling spectroscopy ”

S8-2 (16:40 -17:00)

Kazushi Miki (University of Hyogo)

“Two-step ultrasonication method to make 2D arraying of midnanometer-sized (10-100 nm) gold particles”

S8-3 (17:00 -17:20)

Tadaaki Nagao (National Institute for Materials Science)

“Spectroscopic Nano-transducers for Sensing Applications”

S8-4 (17:20 -17:40)

Hiroshi Daimon (Nara Institute of Science and Technology (NAIST))

“Recent progress in 3D active-site science”

(17:50 - 19:50) Dinner (Western)

Session 9 (20:00 – 21:10), Chair: Wolf Widdra

S9-1 (20:00 – 20:20)

Junji Yuhara (School of Engineering, Nagoya University)

“Germanene epitaxial growth by segregation method on Ag(111) thin films”

S9-2 (20:20 - 20:40)

Yujeong Bae (Center for Quantum Nanoscience)

“Enhanced quantum coherence of magnetically coupled atoms on a surface”

S9-3 (20:40 - 21:10)

Michael Altman (Hong Kong University of Science and Technology) (Invited)

“Graphene Nano-wrinkles on Metals”

Closing Remarks: Hiroshi Daimon

January 18 (Friday)

(10:00) Checkout & Departure