CONFERENCE SCHEDULE

PLEASE NOTE THAT THE VENUE ON TUESDAY JULY 25TH IS IN A DIFFERENT LOCATION THAN THE MON, WED, THU, AND FRI VENUE

Monday 24 July
Presentations will take place in the Technology Square Research Bldg. Auditorium

8:30:00 AM  Breakfast: Technology Square Research Bldg Lobby
9:30:00 AM  Registration: Technology Square Research Bldg Lobby
1:30:00 PM  Conference opening

**Session chair: Xu-Cun Ma, Department of Physics, Tsinghua University, China**

1:50:00 PM  **INVITED:** Site-specific Atomic Imaging and Electron Spectroscopy by Photoelectron Diffraction
Fumihiko Matsui, Nara Institute of Science and Technology, Japan

2:40:00 PM  **Designing antiphase domain boundary by atomic controlled heterointerfaces**
Zhen Wang, Dept. of Physics & Astronomy, Louisianan State University, USA

3:10:00 PM  **Nano-beam Weissenberg RHEED for nano-surface structures**
Naoki Sano, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Japan

3:40:00 PM  Refreshments

**Session chair: Renee Diehl, Penn State University, USA**

4:10:00 PM  **Dynamical LEED study of the 5-fold surface of the icosahedral Al-Pd-Mn quasicrystal**
K. Pussi, LUT School of Engineering Science, Finland

5:40:00 PM  **Surface crystallography of organic adsorbates by LEED-IV**
Georg Held, Dept. of Chemistry, University of Reading and Diamond Light Source, UK,

6:10:00 PM  **Unraveling the Origins of Work Function Dependence on Surface Structure and Composition**
Qunfei Zhou, Dept. of Chemical and Materials Engineering, Univ. of Kentucky, USA

6:40:00 PM  End of sessions
Tuesday 25 July

Presentations will be in the Marcus Nanotech Building Rm 1116

8:00:00 AM  Breakfast: Marcus Nano Building lobby
8:30:00 AM  Registration: Marcus Nanotech Building lobby

Session chair: Akane Maruta, IMRAM, Tohoku University, Japan

8:30:00 AM  INVITED: Quantum transport in the surface states of epitaxial Bi(111) thin films
Xiaofeng Jin, Department of Physics, Fudan University, Shanghai 200433, China

9:20:00 AM  Properties of metallic transition metal dichalcogenide monolayers grown by van der Waals epitaxy
Matthias Batzill, Dept. of Physics, University of South Florida, USA

9:50:00 AM  Structure of Graphene/SiC(000-1) Interfaces prepared in Disilane
Randall Feenstra, Dept. Physics, Carnegie Mellon University, USA

10:20:00 AM  An incommensurate semiconducting graphene phase grown on SiC(0001)
Ed Conrad, School of Physics, Georgia Tech, Atlanta GA, USA

10:50:00 AM  Refreshments (Arts Centre Gallery)
Session chair: Antonio Tejeda, Université Paris-Sud, France

11:20:00 AM  Temperature dependent shape transition of the Ge nanostructures grown on Si (110) surface by MBE technique
Paramita Maitia, Institute of Physics, Sachivalaya Marg, Bhubaneswar-751005, Odisha, India

11:50:00 AM  Surface Intercalation of Metals on Graphite
Patricia A. Thiel, The Ames Laboratory, Ames, Iowa 50011, USA

12:20:00 PM  Lunch
Session chair: **Fumihiko Matsui, Nara Institute of Science and Technology, Japan**

1:50:00 PM
**INVITED: In situ microscopy of rare-earth oxide growth and phase transformations under reaction conditions**
Jan Ingo Flege, Inst. of Solid State Physics, Univ. of Bremen, Germany

2:40:00 PM
**Structure analysis of LaNiO3 ultrathinfilms on LaAlO3 (001) substrates**
Yusuke Wakabayashi, Graduate School of Engineering Science, Osaka Univ., Japan

3:10:00 PM
**Monatomic Transition Metal and TM-Oxide Chains Grown on Ir and Pt Surfaces - A New Class of Hybrid Material**
L. Hammer, Solid State Physics, Friedrich-Alexander University Erlangen-Nuremberg, Germany

3:40:00 PM
**Refreshments (Arts Centre Gallery)**

Session chair: **Randall Feenstra, Dept. Physics, Carnegie Mellon University, USA**

4:10:00 PM
**Oxygen Adsorption on Palladium Monolayer as a Surface Catalyst**
Yogesh Sonvane, Department of Applied Physics, S.V. National Institute of Technology, India

4:40:00 PM
**Pattern formation, domain boundary roughening and critical fluctuations at the oxidized Cu(111) surface**
M.S. Altman, Dept. of Physics, Hong Kong University of Science and Technology, Hong Kong SAR, China

5:10:00 PM
**Steering the growth of multiple ordered heteromolecular phases by utilizing intermolecular repulsion**
Christian Kumpf, Peter Grünberg Institut (PGI-3), Forschungszentrum Jülich, Germany

5:40:00 PM
**End of sessions**

7:10:00 PM
**Poster session (reception: Marcus Marcus Nanotech Building lobby)**
**Wednesday 26 July**

*Presentations will take place in the Technology Square Research Bldg Auditorium*

- **8:00:00 AM** Breakfast: Technology Square Research Bldg Lobby
- **8:30:00 AM** Registration: Technology Square Research Bldg Lobby

**Session Chair: Georg Held, University of Reading, UK**

- **8:30:00 AM** **INVITED: Perfect order without periodicity: 2D oxide quasicrystals**
  W. Widdra, Institute of Physics, Martin-Luther-Universität Halle-Wittenberg, Germany

- **9:20:00 AM** **Buckminsterfullerene: a probe to disclose hidden surface properties**
  Silvia Karthäuser, Peter Grünberg Institut and Institute for Advanced Simulation, Germany

- **9:50:00 AM** **Tailoring graphene band structure by epitaxial growth on vicinal substrate**
  A. Celis, Laboratoire de Physique des Solides, Université Paris Sud., France

- **10:20:00 AM** **Observation and Structure Determination of an Oxide Quasicrystal Approximant**
  H. L. Meyerheim, Max-Planck-Institut f. Mikrostrukturphysik, Germany

- **10:50:00 AM** Refreshments *(Arts Centre Gallery)*

**Session chair: Ed Conrad, Georgia Tech, USA**

- **11:20:00 AM** **INVITED: Operando characterisation of chemical reactions on surfaces in the reciprocal space**
  Roberto Felici, SPIN-CNR, Tor Vergata, Italy

- **12:10:00 AM** **Structural Change of the Pt(111) Electrode Surface During Electrochemical Reaction Observed Using High-Speed X-ray CTR Measurements**
  T. Shirasawa, National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan

- **12:40:00 PM** Lunch
Session chair: Roberto Felici, SPIN-CNR, Tor Vergata, Italy

2:10:00 PM  The 2017 Surface Structure Prize: Pauling’s Rules for Oxide Surfaces
Laurance D. Marks, Dept. of Materials Science and Engineering, Northwestern University, USA

3:10:00 PM  Carbon nanostructure obtaining by the means of vacuum magnetron sputtering
M. A. Kononov, Prokhorov General Physics Institute, Russian Academy of Sciences, Russia

3:40:00 PM  Anti-bacterial behavior of titanium-alloy on surface structuring using Femtosecond laser
Shazia Shaikh, Laser and Plasma Surface Processing Section, Bhabha Atomic Research Centre, India.

4:10:00 PM  Refreshments  (Arts Centre Gallery)
Session chair: Yusuke Wakabayashi, Graduate School of Engineering Science, Osaka Univ., Japan

4:40:00 PM  INVITED: Combining synchrotron light and laser technology in catalysis research: CO oxidation over different phases of Rh and Pd
Johan Gustafson, Dept. of Synchrotron Radiation Research, University of Lund, Sweden

5:30:00 PM  Organic molecules/Metallic surfaces structures studied by Fast Surface Diffraction @ SixS beamline (SOLEIL)
Alessandro Coati, Synchrotron SOLEIL, Gif sur Yvette Cedex, France

6:00:00 PM  Surface X-ray diffraction on magnetite (001)
B. Arndt, Deutsches Elektron-Synchrotron (DESY), D-22607 Hamburg, Germany
**Thursday 27 July**

*Presentations will take place in the Technology Square Research Bldg Auditorium*

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<tr>
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<td>Breakfast: Technology Square Research Bldg Lobby</td>
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<tr>
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<td></td>
<td><strong>Session chair: Patricia A. Thiel, The Ames Laboratory, USA</strong></td>
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| 8:30:00 AM    | INVITED: Spin Transport on the Surface of Topological Insulators Deciphered by Spin-Polarized Four-Probe STM  
[An-Ping Li, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA](mailto:apli@ornl.gov) |
| 9:20:00 AM    | Measuring the long-range corrugation amplitude in boron nitride nanomesh using photoelectron diffraction  
[Matthias Muntwiler, Paul Scherrer Institut, Villigen, Switzerland](mailto:mmuntwiler@mpe-institute.ch) |
| 9:50:00 AM    | **Graphene growth on Ni(110) substrate: Effects of Substrate Orientation**  
[Akane Maruta, IMRAM, Tohoku University, Japan](mailto:akane.maruta@imram.tohoku.ac.jp) |
| 10:20:00 AM   | Junction-less Diode Enabled by Self-Bias Effect of Ion Gel in Single Layer MoS2 Device  
[Gil-Ho Kim, School of Electronic and Electrical Engineering, Sungkyunkwan University, South Korea](mailto:gilkim@sungkyunkwan.ac.kr) |
| 10:50:00 AM   | Refreshments *(Arts Centre Gallery)*                                                      |
|               | **Session chair: Alessandro Coati, Synchrotron SOLEIL, France**                            |
| 11:20:00 AM   | Real-time observation of the initial growth stage of an ultrathin Bi film on Si(111)-7×7 by transmission X-ray diffraction  
[Hiroo Tajiri, Japan Synchrotron Radiation Research Institute/SPring-8](mailto:htajiri@jlsr.or.jp) |
| 11:50:00 AM   | Gap opening in graphene buffer layer induced by structural superperiodicity  
[Antonio Tejeda, Laboratoire de Physique des Solides, Université Paris-Sud, CNRS, UMR 8502, France](mailto:tejeda@lps.u-psud.fr) |
| 12:20:00 PM   | Lunch                                                                                      |
| 2:15:00 PM    | Georgia Aquarium Excursion                                                                |
| 7:30:00 PM    | Reception *(Academy of Medicine, terrace level)*                                          |
| 8:00:00 PM    | Conference dinner *(Academy of Medicine, terrace level)*                                 |
Friday 28 July

Presentations will take place in the Technology Square Research Bldg Auditorium

8:00:00 AM Breakfast: Technology Square Research Bldg Lobby
8:30:00 AM Registration: Technology Square Research Bldg Lobby

Session chair: Matthias Muntwiler, Paul Scherrer Institut, Switzerland

8:30:00 AM INVITED: High temperature superconductivity at the interface
Xu-Cun Ma, Department of Physics, Tsinghua University, China

9:20:00 AM Comparison of Solid-Water Interfaces by X-ray Reflectivity and Density Functional Theory: Al2O3-Water and Graphene-Electrolyte
Katherine Harmon, Applied Physics Program, Northwestern University, Evanston, IL, USA

9:50:00 AM Experimental Observation of Topological Superconductivity and Majorana Zero Modes on beta-Bi2Pd Thin Films
Yanfeng Lyu, Texas Center for Superconductivity, University of Houston, USA

10:20:00 AM Morphological instabilities driven by surface stress in the oxide thin film
Xiao-Xiang Yu, Department of Materials Science and Engineering, Northwestern University, Evanston, IL, USA

10:50:00 AM Refreshments (Arts Centre Gallery)

Session chair: Yanfeng Lyu, Texas Center for Superconductivity, University of Houston, USA

11:20:00 AM An x-ray standing wave and reflectivity study of the buffer graphene-SiC interface
Matt Conrad, School of Physics, Georgia Tech, Atlanta GA, USA

11:50:00 AM Lipid Based Liquid Crystalline Nanoparticles As Potent Therapeutic Modules For Anti Leprosy Drugs
Rohini Kanwar, Department of Chemistry and Centre of Advanced Studies, Panjab University, Chandigarh, India

12:20:00 PM Conference close