32nd International Workshop on Oxide Electronics

Sep. 27 – Sep. 30, 2026

Sendai International Center

Sendai, Japan

Program

Day 1: Sunday, September 27

Reception

Day 2: Monday, September 28

08:55-09:00 Opening Remarks

09:00-10:30 Correlated Oxides and Quantum Materials

09:00-09:30 *Invited*

Satoshi Okamoto (Oak Ridge National Laboratory)

Effect of strong correlations and spin-orbit coupling in transition-metal oxide thin films and heterostructures

09:30-10:00 *Invited*

Roman Engel-Herbert (Paul-Drude-Institut)

Transport characteristics of correlated metals in the high magnetic field limit

10:00-10:15

Kyle Shen (Cornell University)

Orbital-Selective Correlations in the Highly Metallic Transparent Oxide Sr_2MoO_4

10:15-10:30

Daisuke Shiga (Tohoku University)

Interface-Induced Collective Phase Transition in VO_2-Based Bilayers Studied by Layer Selective Spectroscopy

10:30-11:00 Coffee Break

11:00-12:30 Advanced Probes of Oxide Electronics

11:00-11:30 *Invited*

Ankit Disa (Cornell University)

Realizing non-equilibrium functionalities in complex oxides through engineered light-matter interactions

11:30-11:45

Hakuto Suzuki (Tohoku University)

Magnetic excitations in a superconducting bilayer nickelate probed with resonant inelastic x-ray scattering

11:45-12:00

Bongju Kim (Chung-Ang University)

Dominant d_{z2} Orbital Character in Superconducting $La_3Ni_2O_7$ Thin Films Revealed by X-ray Linear Dichroism

12:00-12:15

Stefania Baronio (University of British Columbia)

Layer-resolved electronic structure of $La_3Ni_2O_7$ thin films by resonant x-ray reflectometry

12:15-12:30

Chao Yang (Max Planck Institute for Solid State Research)
Direct visualization of oxygen disorder and structural reconstruction in infinite-layer nickelate films

12:30-14:00 Lunch

14:00-16:00 Poster Session A

16:00-17:45 Membranes and Freestanding Oxide Electronics

16:00-16:30 *Invited*

Harold Y. Hwang (Stanford University)
Straining Freestanding Crystalline Oxide Membranes

16:30-16:45

Junichi Shiogai (The University of Osaka)
A large modulation of ferromagnetic transition temperature in rippled $La_{2/3}Sr_{1/3}MnO_3$ membrane

16:45-17:00

Lambert Alff (TU Darmstadt)
$(Ba_{1-x}Sr_x)TiO_3$ membranes for oxide electronics

17:00-17:15

Thomas Jespersen (Technical University of Denmark)
Josephson physics in free-standing LAO/STO micro-membranes

17:15-17:30

Nianpeng Lu (Institute of Physics, Chinese Academy of Sciences)
Freestanding oxide membranes and flexible devices

17:30-17:45

Taro Hitosugi (The University of Tokyo)
Data-Driven Thin-Film Material Exploration Using a Digital Laboratory with Modular Measurement Instruments and Standardized Data Format

Day 3：Tuesday, Semptember 29

09:00-10:30 Spin-Orbitronics and Magnetic Oxides

09:00-09:30 *Invited*

Changhee Sohn (UNIST)

Magnetism in RuO_2 and Potential Applications in Spintronics

09:30-10:00 *Invited*

Stefano Gariglio (Université de Genève)

The quantum metric of electrons with spin-momentum locking

10:00-10:15

Matthias Opel (Walther-Meissner-Institute)

Static and Dynamic Spin-Hall Magnetoresistance in Magnetic Oxides

10:15-10:30

Wei-Li Lee (Academia Sinica)

Field-induced anisotropic nonlinear Hall effect in strained RuO_2 thin films

10:30-11:00 Coffee Break

11:00-12:30 Materials Design, Growth and Chemistry

11:00-11:30 *Invited*

Hiroshi Kageyama (Kyoto University)

Advanced Anion Control of Structure and Properties in Mixed-anion Compounds

11:30-12:00 *Invited*

Mark Huijben (University of Twente)

Fast Lithium-ion Intercalation in a Mutual Crystalline-Amorphous Single Phase

12:00-12:15

Tsukasa Katayama (Tokyo Univ. Sci.)

Antiferroelectric behavior in mixed-anion $Bi_2TiO_4F_2$ induced by rotation of TiO_3F_3 octahedra

12:15-12:30

Masamichi Negishi (Tohoku Univ.)

Fully Suppressed Superconductivity in Rocksalt-Type Heteroepitaxial Bilayers of Nonferromagnetic Heavy-Fermion Metal CeO and Superconductor LaO

12:30-14:00 Lunch

14:00-16:00 Poster Session B

16:00-17:15 Oxide Interfaces and Two-Dimensional Electron Systems

16:00-16:30 *Invited*

Manuel Bibes (Laboratoire Albert Fert)

Linear and nonlinear transport in ferroic and multiferroic oxide two-dimensional electron gases

16:30-16:45

Gervasi Herranz (Institute for Materials Science of Barcelona ICMAB-CSIC)

Manybody fluctuation contributions to quantum geometry

16:45-17:00

Marco Salluzzo (Instituto SPIN)

Non-volatile orbital magnetoelectric effect in a multiferroic two-dimensional electron systems

17:00-17:15

Yanwu Xie (Zhejiang University)

Coexisting Ferroelectricity and Editable Superconducting Diode Effect at $LaAlO_3/KTaO_3$ interfaces

17:15-18:00 Award Session (iWOE Award Presentations)

17:15-17:35 *Award Presentation*

Tianxiang Nan (Tsinghua University)

Charge–Spin Conversion in Oxide Materials

17:35-17:55 *Award Presentation*

Varun Harbola (Tata Institute of Fundamental Research)

New perspectives in nanoscience with oxide membranes

17:55-18:00 *Award Presentation*

Jennifer Fowlie (Northwestern University) — Video Message

19:00-Banquet

Day 4: Wednesday, September 30

09:00-10:30 Ferroelectrics and Polar Oxide Heterostructures

09:00-09:30 *Invited*

Jorge Iñiguez-Gonzalez (Luxembourg Institute of Science and Technology)

Hafnia: a new ferroelectric archetype

09:30-09:45

Daniel Sando (University of Canterbury)

A polar topology network induces elastic stiffening in ferroelectric oxide superlattices

09:45-10:00

Marina Baryshnikova (imec)

Correlation between Threading Dislocation Density and Electro-Optical Properties of Epitaxial $BaTiO_3$ thin films

10:00-10:15

Yinlian Zhu (Chinese Academy of Sciences)

Topological Anti-hedgehog Lattice in Antiferroelectric $PbZrO_3$ Films

10:15-10:30

Noah Schnitzer (Imperial College London)

Atomic Resolution Tracking of Low-Temperature Ferroic Phase Transitions with Cryogenic Scanning Transmission Electron Microscopy

10:30-11:00 Coffee Break

11:00-12:30 Devices, Integration and Functional Oxide Electronics

11:00-11:30 *Invited*

Masaharu Kobayashi (The University of Tokyo)

Carrier Transport in Nanoscale Amorphous and Poly OS Transistors

11:30-11:45

Darrell G. Schlom (Cornell University)

Dawn of a 7 eV Bandgap Semiconductor and Initial Devices

11:45-12:00

Shikhar Misra (IIT Kanpur)

Functional Oxides for Next-Generation Electronics: From Epitaxial Films and Freestanding Membranes to AI-Driven Discovery

12:00-12:30 *Invited*

Xiao Renshaw Wang (Nanyang Technological University)

Heterogeneous integration of perovskite oxides towards future electronics

12:30-12:45 Closing Remarks