

CORPES17

International workshop on strong correlations and angle-resolved photoemission spectroscopy (CORPES17)

July 2-7, 2017,

JMS Aster Plaza, 4-17 Kako-machi, Naka-ku, Hiroshima 730-0812, Japan

<http://www.hsrc.hiroshima-u.ac.jp/CORPES17/index.htm>

Topics

Spectroscopic investigations of correlated electron materials

- d- and f-electron systems : cuprates, iron pnictides, iridates, heavy fermions
- Doped Mott insulators, unconventional superconductors
- Charge- and spin-density wave systems
- Surfaces, polar surfaces, interfaces, multilayers
- Low-dimensional systems, nanostructures
- Topological insulators, Weyl semi-metals and strong spin-orbit coupled materials
- Graphene

Advances in photoemission techniques

- Time-resolved and two-photon measurements
- Ultra-high resolution spectroscopies
- Bulk-sensitive photoemission
- Spin-resolved techniques
- New possibilities provided by UV and X-ray free electron lasers

The photoemission process

- One-step model including electron correlations
- Low and high photon energies
- High intensities, multi-photon processes, non-linear phenomena
- Theory of time-dependent spectroscopy
- Modeling of pump-probe processes
- Transition matrix elements and final-state effects

Many-body theory of correlated electrons in solids

- Spectral function of lattice-fermion models
- Ab initio approaches to single-electron excitations
- Dynamical mean-field theory and beyond
- GW, weak- and intermediate-coupling methods
- Low-energy effective theories
- Electron-boson coupling
- Quantum criticality and competing orders
- Non-Fermi-liquid behavior
- Novel methods

Relations to other photon-based techniques

- Resonant soft X-ray scattering and inelastic X-ray scattering
- X-ray absorption spectroscopy
- Inverse photoemission
- Tunneling spectroscopy

Invited Speakers

- Steffen Backes (École polytechnique)
Arun Bansil (Northeastern University)
Luca Castiglioni (University of Zurich)
Tom Devereaux (Stanford University)
Jörg Fink (IFW, Dresden)
Atsushi Fujimori (University of Tokyo)
Kyoko Ishizaka (University of Tokyo)
Amit Kanigel (Technion)
Changyoung Kim (Seoul National University)
Hiroshi Kontani (Nagoya University)
Johann Kroha (University of Bonn)
Clemens Laubschat (Technische Universität Dresden)
Alexander Lichtenstein (Universität Hamburg)
Dirk Manske (Max Planck Institutes Stuttgart)
Jan Minar (University of West Bohemia)
Friedrich Reinert (Julius-Maximilians-Universität Würzburg)
Kai Rossnagel (University of Kiel)
Charlotte Sanders (Aarhus University)
Takafumi Sato (Tohoku University)
André-Marie Tremblay (Université de Sherbrooke)
Naoto Tsuji (RIKEN)
S. McKeown Walker (University of Geneva)
Shuyun Zhou (Tsinghua University)
Xingjiang Zhou (Institute of Physics, Chinese Academy of Sciences)

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