



3rd Circular on Asia-Pacific Conference on Condensed Matter Physics 2021 December 1st to 3rd, 2021 and Asia-Pacific Condensed Matter Physics Week

The AC²MP2021 scientific program has been released on the web site. We have already more than 200 registrations of participants. Participation fee is free of charge, but you need to register via the <u>conference web site</u> to have the access to the online conference URL. Please join to this historical event in condensed matter physics in Asia-Pacific area. Besides, if you are not a member of AAPPS-Division of Condensed Matter Physics, please apply the membership (http://www.aapps-dcmp.org/).

Specialty of Conference

- 1. Tutorial lectures on current topics
- 2. Keynote talks by the leading scientists
- 3. Session dedicated for young invited speakers
- 4. Combination of short oral talks and interactive discussions
- 5. Free participation fee

Invited Speaker list and Titles of Talks

*Some of titles are tentative

Tutorials

Manish Jain GW Calculations

Eun-Gook Moon Quantum spin liquid

Masao Ogata Dirac electrons in solids

Keynotes

Xiangang Wan Dictionary of topological materials, computational physics

Arindam Ghosh Thermoelectricity of correlation states in twisted bilayer graphene

Hiroaki Kusunose Cross-correlated phenomena viewed from electronic multipoles

Yuanbo Zhang 2D magnetic, topological and superconducting materials

Hyeonsik Cheong Optical Spectroscopy of Antiferromagnetic 2-Dimensional van der Waals Materials

Li-Chyong Chen

Atomically-designed and surface probing of selective two-dimensional nanomaterials as photo-catalysts for CO₂ reduction to solar fuels

Umesh Waghmare Ferroelectricity at Ultimately Small Length Scales





Guang-Yu Guo

Bulk photovoltaic effect in 2D semiconductors and 3D topological semimetals

Hyunwoo Lee Orbital Hall effect and orbital dynamics

Ryo Shimano Ultrafast control of symmetry broken states in solids by terahertz pulse

Invited Speakers

Bohm Jung Yang Topology of acoustic phonons and anomalous thermal responses

Tse-Ming Chen Strain engineering of 2D materials

Keun Su Kim Pseudogap in a crystalline insulator doped by disordered metals

Rie Umetsu Electronic structures of Heusler alloys as functional magnetic material

Huiqian Luo Neutron study of CMP

Aditi Sen De Quantum Thermal Machines

Yueh-Nan Chen Benchmarking quantum state transfer in the cloud

Suvankar Chakraverty Unique Magnetotransport in KTaO₃ based conducting devices

Sungjae Cho Low-voltage transistors and diodes; Extending the road beyond CMOS

Pabitra Nayak Organic Semiconductors

Takeshi Kondo *Observation of small Fermi pockets in high-T_c cuprates*

Ming-Wen Chu Seeing Charge Density Waves at the Atomic Scale by Cryogenic Scanning

Transmission Electron Microscopy

Yanwu Xie Oxide device and interface, interfacial superconductivity

Wentao Zhang Ultrafast laser ARPES on CDW etc.

Hideaki Sakai Spin-valley coupling and quantum transport phenomena in polar magnetic

Dirac materials

Invited Speakers for Session dedicated for Young Researchers

Sudipta Dubey 2D Materials

Jieun Lee Optical imaging of spin orientations in 2D materials

Sutapa Roy Light-activated Janus colloids suspended in a solvent

Chia-Lung Hsieh

Nanoscale organization and dynamics of biological membranes revealed by high-

speed interferometric scattering microscopy

Toshihiro Nomura

Quest for a magnetic-field-induced liquid-liquid transition of oxygen

by ultrasound measurements in megagauss region

Xi Lin *Ultra low temperature and high magnetic field study*

Minsoo Kim Electron quantum transport in twisted multi-layers of graphene





Ming-Hao Liu Quantum Electronic Transport in Graphene Superlattice Systems

Jong Mok Ok Correlated Oxide Dirac Semimetal in the Extreme Quantum Limit

Vidya Praveen
Bhallamudi

NV Centers in Nanodiamonds

Wanjun Jiang Skyrmion

Rina Takagi Square and rhombic lattice of magnetic skyrmions in a centrosymmetric itinerant

nagnet

Ssu-Yen Huang Manipulation of pure spin current in 3D magnets

Tao Wu NMR studies on various superconductors and CDW systems

Nayuta Takemori Theoretical investigation on superconducting quasicrystals

Koichiro Ienaga

Thermoelectric study of the quantum vortex liquid state in a two-dimensional

amorphous superconductor

Topics of Conference

Scientific sessions cover a wide range of condensed matter physics, including the following subjects—the organizer welcomes varieties of other subjects and interdisciplinary topics not listed below.

- A: Strongly Correlated Electron Systems, Superconductivity, Quantum Materials
- B: Topological Materials and Physics, 2D Materials, Semiconductors
- C: Spintronics, Device Physics, Functional Materials
- D: Magnetic and Ferroelectric Materials
- E: X-ray and Neutron, Muon for Condensed Matter Physics
- F: Extreme condition, High Pressure Physics, High Magnetic Fields, Ultra-low temperature
- G: Optical Physics, Laser Spectroscopy
- H: Molecular Materials, Soft-matter, Complex System, Biomaterial
- I: Ouantum Information
- J: Computational and Theoretical Physics

Web site: http://www.aapps-dcmp.org Meeting/Event-Conference

Registration Site: https://www.apctp.org/theme/d/html/activities/activities01-1_read.php?id=1600



If you cannot see the English page, first click the English in the top. When you will be guided to the HOME page of the APCTP, please go back to the registration page. Or, select one of three tabs shown at left, then it will switch to English.





Participating Events

To be announced

Organizer

The division of condensed matter physics in AAPPS

Important Dates

August 30, 1st circular out

September 10th, Website open for presentation submission

October 16th, Submission of presentation close(Extended)

October 30th, Speaker Decisions

October 30th, Submission of Poster presentation close

November 8th, Final program

Organizing Committee

J.-G. Park (Seoul National Univ.)

S. M. Yusuf (Bhabha Atomic Research Centre)

H. Nojiri (Tohoku Univ.) K.-Y. Choi (Sungkyunkwan Univ.)

Y.-P. Chiu (National Taiwan Univ.) F.-C. Chuang (National Sun Yat-Sen Univ.)

L. Lu (The Institute of Physics, CAS)

V. Nanal (Tata Institute of Fundamental Research)

T. Sakai (Univ. of Hyogo) H.-H. Wen (Nanjing Univ.)

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China)

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Research)

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Univ.)

Y. Matsuda (Univ. Tokyo) S. Narasimhan (Jawaharlal Nehru Centre for

Advanced Scientific Research)

C-H. Yang (KAIST)

S. Zhou (Tsinghua University)

Local Organizing Committee

Secretary K.-Y. Choi (Sungkyunkwan Univ.)

Web site T. -H. Kim (POSTECH)

Online conference C. -H. Yang (KAIST)

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