



WORKSHOP ON

TRANSFORMATIONAL MATERIALS IV

Addressing the future needs of computing and energy will require radical advances in materials. This workshop will explore the latest theoretical advances in understanding and predicting novel phenomena, such as effects that exhibit extraordinary quantum, electronic, magnetic, optical, topological, or emergent properties, that can lead to transformational materials for computing and energy.

PROGRAM

- 09:20 am** Introduction
- 09:30 am** Prof. Yuriy Mokrousov - *online presentation*
Johannes-Gutenberg-University Mainz, Institute of Physics
Forschungszentrum Juelich, Institute for Advanced Simulation (IAS-1)
Orbitronics: Prospects and Challenges
- 10:30 am** Prof. Guido Burkard - *online presentation*
Department of Physics, University of Konstanz
Recent advances and challenges for semiconductor spin qubits
- 11:30 am** Lunch Break
- 01:00 pm** Prof. Miguel Marques - *on-site presentation*
Martin Luther University Halle-Wittenberg, Institute of Physics
Machine-learning assisted discovery and characterization of materials
- 02:00 pm** Prof. Felix von Oppen - *on-site presentation*
Freie Universität Berlin, Department of Physics, Dahlem Center for
Complex Quantum Systems
Superconductors as transformational materials
- 03:00 pm** Prof. Karin Everschor-Sitte - *online presentation*
Faculty of Physics and Center for Nanointegration Duisburg- Essen
(CENIDE), University of Duisburg-Essen, Duisburg
Computing with magnetic whirls

OCTOBER 12, 2022

09:20 AM - 4:00 PM

LECTURE HALL / ONLINE

