mpipks

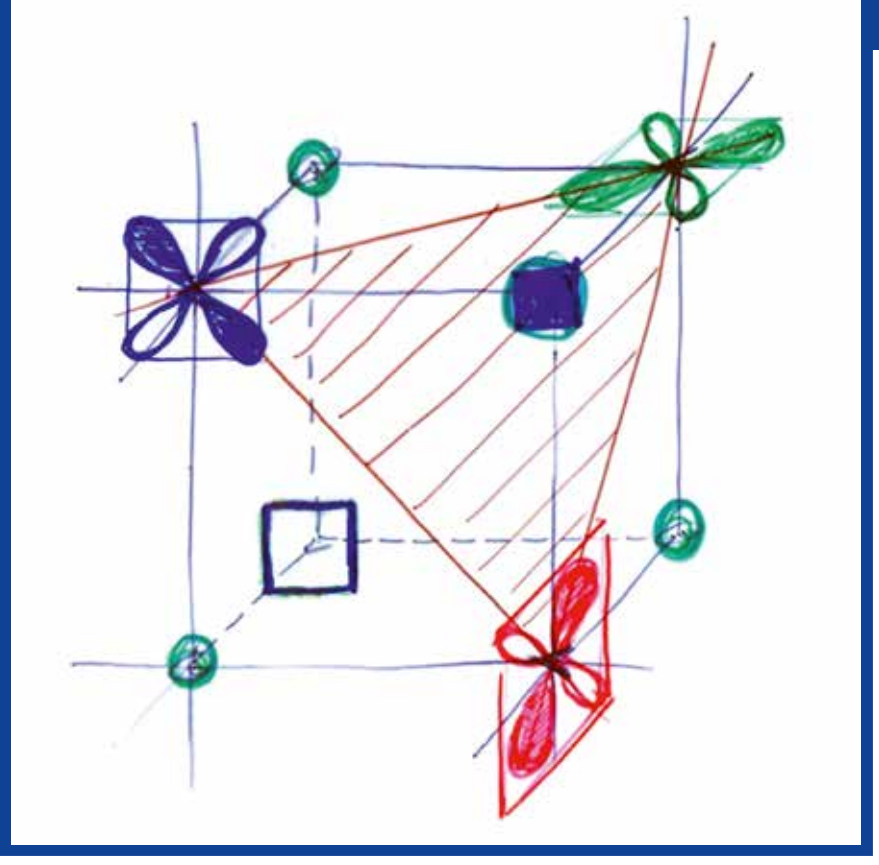
MAX-PLANCK-GESELLSCHAFT

Correlated Electrons in Transition-Metal Compounds: New Challenges

Max Planck Institute for the Physics of Complex Systems

International Workshop
5 - 9 November 2018

The aim of this workshop is to foster collaborations between scientists in the wide field of transition-metal compounds, to highlight recent developments, and to bring together experimental and theoretical physicists. The focus lies on the interplay and mutual frustration of electron-electron interactions (involving spin, charge, and orbital degrees of freedom) and spin-orbit coupling effects.



Topics

- Kitaev materials: iridates, $RuCl_3$, and other TMCs
- New theoretical tools - from DMRG to DMFT
- Complex charge, spin, and orbital order
- Extended first principles approaches
- Skyrmions and chiral spin textures
- Frustrated quantum magnetism
- Novel 4d and 5d materials
- Negative charge-transfer gap
- High oxidation states
- Multiferroicity
- Orbital physics

Keynote speakers

Robert J. Cava
Princeton, USA

Antoine Georges
Paris, France & New York, USA

Maxim Mostovoy
Groningen, The Netherlands

Yoshinori Tokura
Tokyo, Japan

Complete list of invited speakers

see workshop web page
www.pks.mpg.de/cetmc18

Scientific coordinators

Markus Grüninger
Köln, Germany

George A. Sawatzky
Vancouver, Canada

Jeroen van den Brink
Dresden, Germany

Organisation

Katrin Lantsch
MPIPKS Dresden

Applications received before 15 August 2018 are considered preferentially.

Applications are welcome and should be made by using the application form on the event's web page. The number of attendees is limited. The registration fee for the international workshop is 120 Euro and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses.

For further information please contact:
Visitors Program – Katrin Lantsch
MPI for the Physics of Complex Systems
Nöthnitzer Str. 38, D-01187 Dresden
phone: +49-351-871-1931
fax: +49-351-871-2199
cetmc18@pks.mpg.de
www.pks.mpg.de/cetmc18/

We also offer individual fellowships (phd, postdoc, sabbatical). Applications are accepted continuously. For details, please check www.pks.mpg.de/visitors