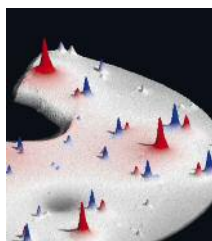
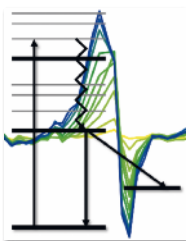
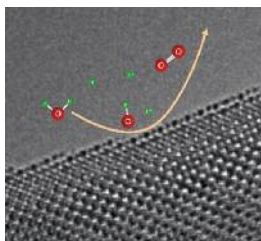


International Workshop on Correlated Dynamics in Energy Conversion IWCE 2019



September 2-4, 2019
Göttingen, Germany

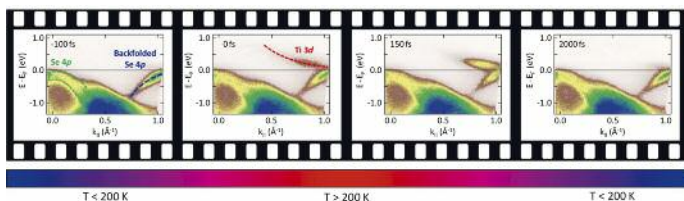


Contact: info@iwce2019.org
Register under <http://www.iwce2019.org/>
Registration: February 18, 2019 to July 31, 2019
Deadline for abstract submission: July 1, 2019

Venue: »Alte Mensa«
Wilhelmsplatz 3
37073 Göttingen



GEORG-AUGUST-UNIVERSITÄT
GÖTTINGEN



International Workshop on Correlated Dynamics in Energy Conversion – IWCE 2019

The fundamental mechanisms underlying energy conversion in a material are the generation, transport, and transformation of excitations. These processes are determined by the interaction of excitations in the electron, spin and atom degrees of freedom. Until now, our understanding of excitation dynamics in materials is based on single particle descriptions, but these break down entirely for systems with strong correlations between the different degrees of freedom. At the same time, strongly correlated processes offer exceptional and unexpected new properties, so that a deeper understanding of their dynamics is a very promising direction to optimize energy conversion steps.

The aim of this interdisciplinary workshop is to identify and present some of the most fascinating examples of strongly correlated energy conversion steps. The dialectical and interactive format of the workshop will allow for comprehensive discussions in the following topical areas:

- ▶ Impact of electron-electron and electron-spin correlations on excitations and transient states.
- ▶ Correlated electron dynamics in 2D materials.
- ▶ Polaron excitations and dynamics in energy conversion.
- ▶ Proton-coupled electron transfer.
- ▶ Electron transfer induced processes at interfaces.
- ▶ Role of phonon interactions on energy dissipation and heat transport.

Presentations from outstanding experimentalists and theorists in physics, chemistry, and materials science are planned and will include invited tandem talks, invited and contributed presentations, flash sessions, and posters.

We welcome your contribution to IWCE 2019 and promise you an exciting workshop, identifying and discussing new paradigms for energy conversion.

Looking forward to seeing you in Göttingen!

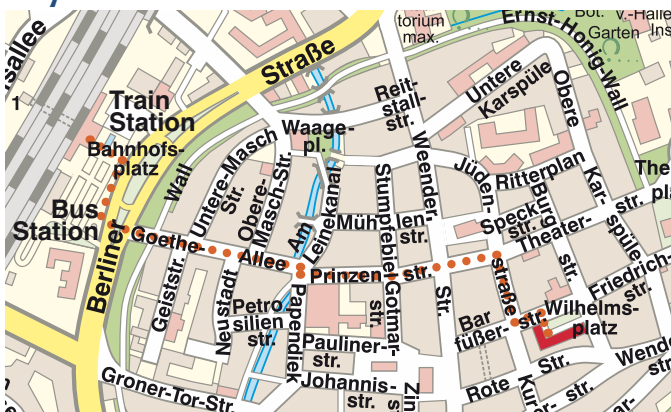
Christian Jooss

On behalf of the IWCE 2019 Scientific Committee:

Fabian Heidrich-Meisner, Christian Jooss, Stefan Mathias, Claus Ropers, Sven Schneider, Inke Siewert, Cynthia Volkert.



City Plan



Travel Information

Arriving by plane

The nearest airport to Göttingen is Hannover. For international flights we recommend Frankfurt am Main, Airport. There are regular train connections to Göttingen.

Arriving by train

Göttingen can conveniently be reached by train. The train station is located close to the city centre.

Arriving by car

Göttingen can be reached via motorway A7 from either the north or south

Invited Speakers

Electronic Correlation

Andrea Cavalleri

Max-Planck-Institute for the Structure and Dynamic of Matter,
Hamburg, Germany

Tobias Donner

Institute for Quantum Electronics, ETH Zürich, Switzerland

Sangeeta Sharma

Max-Born-Institute for Non-linear Optics, Germany

Polarons

Xiaoyang Zhu

Dep. of Chemistry, Columbia University, USA

Mona Berciu

Dep. of Physics and Astronomy, University of British Columbia,
Canada

Geoff Thornton

Dep. of Chemistry, University of London, UK

Proton-coupled electron transfer

James M. Mayer

Dep. of Chemistry, Yale University, USA

Tanja Cuk

University of Colorado, Boulder, USA

Cyrille Costentin

University of Paris, France

Charge transfer induced correlations at interfaces

Ellen Backus

Max-Planck-Institute for Polymer Research, Mainz, Germany

Axel Groß

Institute for Theoretical Chemistry, University of Ulm, Germany

Thierry Epicier

Chemistry of Materials, Nanomaterials and Processes,
Université de Lyon, France

Ethan J. Crumlin

Lawrence Berkeley Laboratory, California, USA

Interactions and transport of phonons/vibrations

Olivier Delaire

Dep. of Mechanical Engineering and Materials Science,
Duke University, USA

David G. Cahill

Materials Science and Engineering,
University of Urbana Illinois, USA

Paul Erhart

Chalmers University of Technology, Gothenburg, Sweden