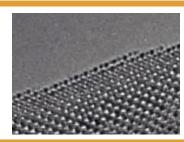
# International Workshop on Correlated Dynamics in Energy Conversion IWCE 2023



September 11 - 14, 2023 Göttingen, Germany





Venue: "Alte Mensa" Wilhelmsplatz 3 37073 Göttingen – Germany

Contact: info@iwce2023.org Register under https://iwce2023.org Registration: May 1, 2023 to July 31, 2023 Deadline for abstract submission: July 31, 2023

For more detailed information please visit our website: https://iwce2023.org





# International Workshop on Correlated Dynamics in Energy Conversion - IWCE 2023

The fundamental mechanisms underlying energy conversion in materials and molecules are the generation, transport, and transformation of excitations. These processes are determined by the interaction of excitations in the electron, spin and nuclear 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:

- Proton-Coupled Electron Transfer
- ► Photoinduced Molecular Dynamics
- ► Electron/ Phonon Coupling
- ► Hot Carriers/ Hot Polarons
- ► Correlation in Driven States at Interphases
- ► Correlations in 2-D Materials
- ► Photoinduced Phase Transitions

Presentations from outstanding experimentalists and theorists in physics, chemistry, and materials science are planned and will include, invited and contributed oral and poster presentations.

We welcome your contribution to IWCE 2023 and promise you an exciting workshop, identifying and discussing new paradigms for energy conversion.

Looking forward to seeing you in Göttingen!

Christian Jooss, Sven Schneider

On behalf of the IWCE 2023 Scientific Committee: Christian Jooss, Sven Schneider, Fabian Heidrich-Meisner, Stefan Mathias, Inke Siewert and Thomas Weitz





# **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.



Tagungs- und Veranstaltungshaus Alte Mensa, Wilhelmsplatz 3, 37073 Göttingen



# **Invited Speakers**



#### **Proton-Coupled Electron** Transfer

Yogesh Surendranath

Andrea Pannwitz Institute of Inorganic Chemistry I, University of Ulm, Germany

Department of Chemistry, MIT, USA

Carole Duboc Department of Molecular Chemistry, University of Grenoble

Alpes, France

Chair: Sven Schneider

**Chair: Inke Siewert** 

#### Photoinduced Molecular **Dynamics**

Department of Chemistry, University of Basel, Switzerland Oliver Wenger Department of Chemistry, RPTU Kaiserslautern, Germany Maria Wächtler Leticia Gonzalez

Department of Theoretical Chemistry, University of Vienna,

Austria

#### **Electron/ Phonon Coupling**

Max-Planck-Institute for the Structure and Dynamics Angel Rubio

of Matter, Hamburg, Germany

Chair: Fabian Heidrich-Meisner

Manuel Weber Max-Planck-Institute for the Physics of Complex Systems,

Dresden, Germany

#### **Hot Carriers/ Hot Polarons**

Chair: Christian Jooss

Maria A Loi Zernike Institute for Advanced Materials, University

of Groningen, Netherlands

Artem A. Bakulin Department of Chemistry, Imperial College London, UK

### Correlation in Driven States at Interphases

Chair: Christian Jooss

National Centre for Nano Fabrication and Characterization, Thomas W. Hansen

DTU, Denmark

Fric Stach Department of Materials Science and Engineering,

University of Pennsylvania, USA

Jim Ciston Lawrence Berkeley National Laboratory, USA

#### Correlations in 2-D Materials

#### Chair: Thomas Weitz

ChunNing Lau Department of Physics, Ohio State University, USA Klaus Ensslin Department of Physics, ETH Zürich, Switzerland Abhay N. Pasupathy Department of Physics, Columbia University, USA

Max-Planck-Institute for Solid State Research,

Stuttgart, Germany

#### Photoinduced Phase **Transition**

Jurgen Smet

#### Chair: Stefan Mathias

Daniele Fausti Institute of Condensed Matter Physics, FAU Erlangen-

Nürnberg, Gemany

Ulrich Höfer Department of Physics, University of Marburg, Germany

Isabella Gierz Institute for Experimental and Applied Physics,

University of Regensburg, Germany