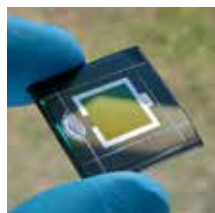
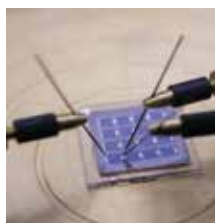


QUANTSOL FIRST ANNOUNCEMENT AND CALL FOR APPLICATION



We would like to inform you about the upcoming “Quantsol winter school on Analytics for Photovoltaics and (Photo)electrochemistry” to be held from January 8 - 15, 2023 in Hirschegg, Kleinwalsertal, Austria. The school is now open for application until November 22, 2022.

The school primarily addresses young postdocs, PhD students, and master students in their final year at university with an interest in photovoltaics, photoelectrochemistry and solar energy conversion.



Invited speakers, all recognised scientists from leading world institutions, will give lectures covering a wide range of topics on the fundamental principles of advanced characterisation techniques as well as the physical and technical challenges.

The school is complimentary to the very successful Quantsol summer school on photovoltaics which were held in 1998, 2001, 2003, 2006-2022. The winter school will be very interactive and the participants and speakers are requested to present their field of research and themselves in a short oral presentation on the first day of the school. Details of the school's program can be found on the webpage:

https://www.helmholtz-berlin.de/events/quantsol-winterschool/index_en.html

Subjects

Introduction to the major challenges of photovoltaics and photocatalysis
Electrical characterisation (*4-Probe, EQE, SPV, CV, Hall effect, Voltammetry*)
Structural and morphological characterisation (*XRD, EDSD etc.*)
Scanning and transmission electron microscopy (*SEM, TEM*)
Nanoprobe characterization (*AFM, STM, Kelvin probe etc.*)
Magnetic characterisation (*EPR, NMR*)
Solar cell characterisation (*EQE, IQE, Suns Voc, Sun simulator, etc.*)
Lifetime spectroscopy (*PL, TR-PL, pump-probe, transient absorption, THz spec. etc.*)
Optical characterisation (*Transmission, absorption, Ellipsometry, IR, Raman etc.*)
Chemical analysis (*SIMS, ERDA, RBS, GDOES, XRF, EDX, WDX etc.*)
X-Ray spectroscopy (*XPS, UPS, XAS, XES, XRF*)
Hardware (*detectors, light sources, monochromators, synchrotron etc.*)
Data analysis and error calculation

Speakers

Francesca Toma (Lawrence Berkeley National Laboratory, USA)
Thomas Unold (HZB, GER)
Thomas Kircharzt (FZ Jülich, Univ. Duisburg, GER)
Marco Favaro (HZB, GER)
Klaus Lips (HZB, FUB, GER)
Daniel Vanmaekelbergh (Utrecht University, NL)
Susan Schorr (HZB, FUB, GER)
Katja Höflich (FBI, HZB, GER)
Annica Freytag (HUB, HZB, GER)
Thomas Dittrich (HZB, GER)
Christiane Becker (HZB, GER)



Location

The lectures will be given in the mountain guesthouse „Darmstädter Haus“ (www.darmstaedter-haus.tu-darmstadt.de/unserhaus/index.de.jsp) of the Technische Universität Darmstadt in Hirschegg (Kleinwalsertal, Austria), where all attendants and lecturers will be lodged.

School fee

School fee is 690 € for participants from universities and research institutes and 790 € for participants from industry. The school fee includes board (excluding drinks), lodging, and registration fee.

Applications

Students who intend to participate in the winter school are required to apply through the school's homepage:

www.helmholtz-berlin.de/events/quantsol/applications/index_de.html

Since the winter school is limited to 52 students, we have a selection procedure. In order to be able to judge on your qualification, you are requested to submit your curriculum vitae plus a short statement that justifies favorable consideration as a participant.

Students that are accepted to participate in the winter school will be notified at the beginning of Dezember 2022 and are then asked to register by paying the school fee via bank transfer (credit cards are not accepted). Further details will be sent out with the notification of acceptance.



Mountain guesthouse „Darmstädter Haus“ of TU Darmstadt in Hirschegg

Winter Activities

Kleinwalsertal offers great winter activities such as skiing, winter hiking, cross country skiing, ice skating, and tobogganing. Details can be found here: <https://www.kleinwalsertal.com/en/Activities/Winter>

Organised and financed by:

Helmholtz-Zentrum Berlin für Materialien und Energie (HZB)
The European Society for Quantum Solar Energy Conversion

Organising committee:

Chair and organizers: Prof. Dr. Klaus Lips (HZB, GER)

Contact for further information

E-Mail: quantsol@helmholtz-berlin.de

Webpage: https://www.helmholtz-berlin.de/events/quantsol-winterschool/index_en.html

Deadline for application is November 22nd, 2022 (12.00 pm GMT+2)