



XIV. INTERNATIONAL CONFERENCE ON HOLE BURNING, SINGLE MOLECULE, AND RELATED SPECTROSCOPIES



August 28 – September 2, 2022
University of Bayreuth
Germany
www.hbsm22.uni-bayreuth.de

Introduction

The conference was originally initiated as a conference on the spectroscopy method of "Persistent Spectral Hole Burning" and developed soon into a meeting of the international single-molecule spectroscopy community. This is testified by the regular participation of the two pioneers of the field W.E. Moerner (Stanford University, Nobel Prize in Chemistry 2014) and M. Orrit (University of Leiden, Spinoza Prize 2017), who have already agreed to attend also the conference in 2022. The conference itself is held every three years and hosts about 150 scientists from all over the world. It focuses mainly on spectroscopy rather than imaging of single quantum objects, and the topics covered include, for example, single ions and defect centres in solids, nano-optics and plasmonics, as well as the energetics and dynamics of biomolecules and quantum dots.

The upcoming conference is the 14th in its series; previous conferences were organized in Switzerland, Japan, France, Taiwan, USA, Australia, Germany, Estonia, and Russia. More information about the conference can be found at <http://www.hbsm22.uni-bayreuth.de>

- **Single molecule / particle spectroscopy**
- **Spectral hole burning**
- **Energetics of single biomolecules**
- **Nearfield spectroscopy**
- **Nanoplasmonics**
- **Nanoscopy**
- **Photon echoes and ultrafast phenomena**
- **Optical signal processing**



Speakers

Keynote Presentations:

W.E. Moerner, Stanford University, USA

M. Orrit, University of Leiden, Netherlands

Inviteds:

Th. Basché, University of Mainz, Germany

R. Hildner, University of Groningen, Netherlands

F. Jelezko, University of Ulm, Germany

J.-S. Lauret, ENS Saclay Paris, France

P. Lu, Bowling Green State University, USA

J. Köhler, University of Bayreuth, Germany

T. Krüger, University of Pretoria, South-Africa

M. Lippitz, University of Bayreuth, Germany

A. Meixner, University of Tübingen, Germany

N. Murase, Osaka University, Japan

J. Olesiak-Banska, Wroclaw University, Poland

Yu. Orlovskii, University of Tartu, Estonia

A. Rebane, Montana State University, USA

Th. Renger, University of Linz, Austria

G. Schlau-Cohen, MIT Boston, USA

I. Scheblykin, Lund University, Sweden

C. Toninelli, LENS, Italy

H. Uji-i, Hokkaido University, Japan

M. Vacha, Tokyo Institute of Technology, Japan



* subject to the provisions of the local health agency and travel conditions

Venue

Bayreuth is a city in the north of Bavaria with interesting places, museums, and parks like the New Palace, the Hermitage, or the two Opera Houses. The Margravial Opera house of Bayreuth was built in the 18th century and since 2012 it is on the list of the Unesco World Cultural Heritage. The Bayreuth Festival Theatre is an Opera House that was built by the 19th century composer Richard Wagner.

The campus of the University of Bayreuth is located in walking distance towards the south of the city centre.



Travelling:

By plane:

Travel to Frankfurt, Munich or Nuremberg International Airports. Continue to Bayreuth by train or rental car.

By train:

Travel to Nuremberg, Würzburg or Bamberg, and continue by train to Bayreuth.

By car:

You can take different Highways (A 9, A 70) to Bayreuth.

Environment: Bayreuth is the gateway to closeby hiking areas and famous for the highest density of beer breweries in the world.

Contact

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