

Conference Agenda | Tuesday, April 14

- 08:00 - 09:00** **Registration and Coffee**
Campus Guest Building, room 152, Universitätsstraße 34, 70569 Stuttgart
- 09:00 - 09:10** **Welcome & Introduction**
Klaus Pross, Sales Manager, Bruker Nano Surfaces & Metrology
- 09:10 - 09:40** **The Nanoscale Photovoltaics Laboratory on a Tip**
Prof. Dr. Stefan A.L. Weber, Group leader for Nanoscale Microscopy, Institute for Photovoltaics, University of Stuttgart
- 09:40 - 10:10** **DNA Origami: Self-Organization on Artificial Cell Membranes**
Dr. Sisi Fan, 2nd Physics Institute, University of Stuttgart
- 10:10 - 10:40** **One Probe, Two Worlds: Exploring Biology's Hidden Chemistry with AFM-IR**
Dr. Khaled Kaja Application Scientist, Bruker Nano Surfaces & Metrology, Karlsruhe
- 10:40 - 11:10** **Coffee Break**
- 11:10 - 11:30** **RNA Origami: Expression of an Artificial Cytoskeleton in Synthetic Cells**
Dr. Mai P. Tran, Institute for Molecular Systems Engineering and Advanced Materials (IMSEAM), Heidelberg University
- 11:30 - 11:50** **Ultrastructural Dynamics of ROOTLETIN Fiber Molecules**
Dr. Enrico Salvatore Atorino, EMBL, Heidelberg
- 11:50 - 12:20** **Latest Innovations From Bruker BioAFM Unit**
Dr. Andre Körnig, Application Scientist, Bruker BioAFM, Berlin
- 12:20 - 13:45** **Lunch break**
- 13:45 - 14:00** **Walk to 2nd Physics Institute / 2. Physikalisches Institut**
Pfaffenwaldring 57, 70569 Stuttgart
- 14:00 - 18:00** **Practical Sessions (each session covers three topics running in parallel)**
Pfaffenwaldring 57, 70569 Stuttgart
- 14:00 - 14:45** **Practical Session 1**
- 15:00 - 15:45** **Practical Session 2**
- 16:00 - 16:45** **Practical Session 3**
- 17:00 - 17:45** **Practical Session 4**

Practical Sessions – Topics:

- **Automated, Multi-Compartment, and AI-Guided AFM Imaging**
Instrument: NanoWizard V AFM with CellWizard™ Stage (Room 5.523)
 - MultiScan Software
 - CellPose image data segmentation
 - Optical Integration
 - Zeiss AxioObserver
- **Fast AFM Imaging of Biomolecules**
Instrument: NanoWizard UltraSpeed 3 AFM (Room 5.337)
 - DynAsyst software
 - Batch data processing
 - Exporting video files
- **High-resolution Imaging and Quantitative Nanomechanical Mapping, Electrical Characterization**
Instrument: Dimension Nexus AFM (Room 5.521)
 - PeakForce Tapping mode
 - PeakForce Quantitative Nanomechanical Mapping
 - Electrical characterization modes



Demo Day (Optional) | Wednesday, April 15

09:30 - 12:00 **Advanced Training Sessions and Samples Measurements (runs in parallel)**

2. Physikalisches Institut, Pfaffenwaldring 57, 70569 Stuttgart

Advanced Training 1

Measurement of Mechanical Properties: Measuring Elastic and Viscoelastic Properties, Data Processing, and Q&A Session

NanoWizard V with the CellWizard stage and Zeiss AxioObserver microscope (room 5.523)

Advanced Training 2

High-Resolution and Fast Imaging

NanoWizard UltraSpeed3 AFM (room 5.337)

Advanced Training 3

Mechanical and Electrical Characterization of Samples

Dimension Nexus AFM (room 5.521)

09:30 - 12:00 **Demonstration of the NanoWizard V combination with FLIM setup from PicoQuant**

Institute for Photovoltaics, Pfaffenwaldring 47, 70569 Stuttgart

Conference Location

University of Stuttgart, Germany

Talks:

[Campus Guest Building](#), Room 152

Universitätsstraße 34

70569 Stuttgart

Practical Sessions:

[2. Physikalisches Institut](#)

Pfaffenwaldring 57

70569 Stuttgart



University of Stuttgart
Germany

The conference is free of charge.

Please contact Christina.Hesse@bruker.com if you have any questions.