

Summerschool 2024 Electron Microscopy, Arnimalle 22 Großer Hörsaal, 14195 Berlin

Day1

Monday October 07, 2024

9:00 Registration

Foyer, Arnimallee 22, Freie Universität Berlin, Mathias Dimde, Melanie Wellmann

9:30-9:40 Welcome and opening remarks (Christian Freund)

1st session: Materials science

09:40-10:15 Dirk Berger (TU Berlin, ZELMI)

Advanced Element Analysis in Electron Microscopy

10:15-10:50 Michael Lehmann (TU Berlin)

Advanced S/TEM-Methods – Utilizing the Wave Nature of the Electron

10:50-11:10 Coffee break

2nd session: Materials science

11:10-11:45 Christoph Koch (HU Berlin)

Fast electrons observe atoms in motion

11:45-12:20 Thomas Lunkenbein (Fritz Haber Institut Berlin)

The role of electron microscopy in heterogeneous catalysis research

12:20-14:40 Lunch buffet and poster-session

3rd session: Structural Biology/Molecular EM

14:40-15:15 Tarek Hilal, (FU Berlin)

Single particle cryoEM of biological assemblies and beyond

15:15-15:50 Petra Wendler (Universität Potsdam)

Exploiting the full potential of cryo EM maps or can we visualise electrons by single particle cryo-EM?

15:50-16:30 Coffee break and poster-session

4th session: Structural Biology/Molecular EM

16:30-17:05 Christian Spahn, Charité Berlin

tba

17:05-17:40 Stefan Raunser (MPI Dortmund)

Unlocking the secrets of heart muscle structure

From 18:00 Get together

Summerschool 2024 Electron Microscopy, Arnimalle 22 Großer Hörsaal, 14195 Berlin

Day2

Tuesday October 08, 2024

5th session: Ultra-Structure/Cellular EM

9:00-9:35 Christoph Dibolder (Charité Berlin)

Introduction to in situ Structural Biology

9:35-10:10 Arjen Jakobi (TU Delft)

tba

10:10-10:50 coffee break

10:50-11:25 Kai Ludwig (FU Berlin)

Supramolecular Assemblies for Pathogen Inhibition

11:25-12:00 Nico Sommerdijk (Radboud University Nijmegen)

3D Correlative Live and Cryogenic imaging of Biological Tissues combining Raman, Light and Electron Microscopy

12:00-13:00 Lunch

13:00-13:35 Salah Al Masri, Franziska Liebe and Anne-Sophie Fisch (FU Berlin)

Visualising subcellular structures and organelles in three-dimensional cell cultures

13:35-14:10 Thomas Stach (HU Berlin)

Plants, Parasites, and Appendicularians - recent research at the Laboratory for Comparative Electron Microscopy

14:10-14:45 Alexandra Kerbl (Universität Heidelberg)

Reconstructing organisms section by section - Modular serial section scanning electron microscopy-workflow for whole-organism connectomics projects

14:45-15:20 Coffee break

6th session: Ultra Structure/Cellular EM

15:20-15:55 Matthias Ochs (Charité Berlin)

Using electron microscopes to look into the lung

15:55-16:30 Christel Genoud (EPFL, Lausanne)

Targeted volume EM in room temperature and cryo-EM : exemples from a facility

16:30-17:05 Jan Giesebrecht (Thermo Fisher Scientific Berlin)

Amira - Advanced 3D image processing and segmentation

17:05-17:20 Closing Remarks

From 17:30 Lab Tour FZEM/SupraFAB