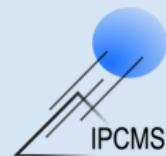




TEM | EUROPEAN PLATFORM
OF IPCMS STRASBOURG



SCIENTIFIC WORKSHOP

“Electron Microscopy at high Spatial and Temporal Resolution”

Program

Inauguration of Transmission Electron Microscopy
OPERANDO (Grand ARM 2)

Cronenbourg Campus, 23 rue du Loess, Strasbourg

Monday 13, 2025

11:00-12:30, Auditorium IPCMS – Building 69

Outreach lectures : From Next-Generation Materials to Advanced
Analytical Tools: An Essential Partnership

Pr. Clément Sanchez, LCMCP CNRS-Sorbonne Université-Collège de France Paris,
USIAS Strasbourg

« *Integrative Materials Science: A domain where chemistry, biology, physics and
engineering meet* »

Pr. Gianluigi Botton, Diamond Light Source (UK) and McMaster University (CA)

« *Probing the atomic and electronic structure of functional materials with electron
microscopy and spectroscopy* »

14:30-16:30, Amphitheater Perey - Building 01

Official Inauguration (CNRS, University of Strasbourg, Foundation Jean-
Marie Lehn, Local authorities, Alsace region etc.)

Tuesday 14, 2025

9:00-17:30, Amphitheater Grünwald - Building 25

Scientific workshop : Electron Microscopy at High Spatial and Temporal
Resolution: Current Status and Future Perspectives in Material
Characterization



SCIENTIFIC WORKSHOP

“Electron Microscopy at high Spatial and Temporal Resolution”

Pr. Nigel Browning, Albert Crewe Centre for Scanning Transmission Electron Microscopy, Liverpool (UK)

« *Sparse Sampling and Inpainting for High resolution, In-situ and Ultrafast (S)TEM* »

Pr. Naoya Shibata, Institute of Engineering Innovation, School of Engineering, The University of Tokyo and Nanostructures Research Laboratory, Japan Fine Ceramic Center (Japan)

« *Development of magnetic-field-free atomic resolution electron microscope* »

Pr. Marc-Georg Willinger, Department of Chemistry, School of Natural Sciences Technical University of Munich (Germany)

« *Dynamics at phase boundaries and their relation to catalytic function: Insights from operando electron microscopy* »

Pr. Joke Hadermann, Electron microscopy for materials science (EMAT), University of Antwerp (Belgium)

« *Crystal structure evolution tracking using in situ 3D ED and 4D-STEM tomography* »

Pr. Odile Stephan, Laboratoire de Physique des Solides (LPS), Université Paris-Saclay - CNRS, Orsay

« *Recent advances in monochromated STEM EELS and related spectroscopy techniques* »

Dr. Sophie Meuret, Centre d'élaboration de matériaux et d'études structurales (CEMES), CNRS, Toulouse

« *Dynamics of semiconductors heterostructures with an Ultrafast Transmission Electrons Microscope* »

Dr. Patricia Abellan, Institut des Matériaux de Nantes Jean Rouxel (IMN), CNRS, Nantes

« *The radiolysis of water ice interfaces and aromatic compounds in the electron microscope* »

Dr. Arnaud Demortier, Laboratoire de Réactivité et de Chimie des Solides (LRCS), CNRS, Amiens

« *Pushing the Limits of 4D-STEM in Battery Research: ACOM Mapping and Electron Ptychography* »

Dr. Patrick Schultz, Institut de Génétique et de Biologie Moléculaire et Cellulaire (IGBMC), CNRS – Université de Strasbourg

« *3D imaging of hydrated samples, lessons from biology* »