

NanoMat Science Day 2022

Date: June 2th, 9 am – 8 pm.

It is recommended to wear a mask while attending at the FLASH seminar room.

For guided tours wearing a mask is obligatory

Onsite and virtual workshop, location: **FLASH seminar room**

Poster session: **FLASH** seminar room, please bring your posters at **8.30 am.** and attach them on the poster frames according to your given number

BBQ: **CXNS** yard and 25f cafeteria

Topics & session coordinators:

1. Structural and nanomaterials (A. Chumakov, T.F. Keller)
2. Heterogeneous catalysis and water research (E. Welter, W. Caliebe, P. Huber)
3. Quantum materials (M. Hoesch, L. Bocklage)

15 minutes talk and 5 minutes discussion each

Structural and nanomaterials (chairs: A. Chumakov, T.F. Keller) - short introduction by speakers		
9.00-9.20	Dmitry Lapkin	Correlative X-ray Nanodiffraction and Spatially Resolved Fluorescence Study of Caesium Lead Halide Perovskite Supercrystals
9.20-9.40	Rachel Husband	Using XFELs to create extreme temperature states in compressed water and gold mixtures
9.40-10.00	Calvin Brett	Nanoscale restructuring of thin organic electronics
10.00-10.20	Christina Ossig	X-ray vision of Cu(In,Ga)Se ₂ : from the Ga/In ratio to solar-cell performance
10.20-10.40	Lukas Grote	In situ HERFD-XANES and X-ray scattering studies on the non-classical formation of CoO nano-assemblies
10.40-11.00	Robert Gleissner	Copper nanoparticles with high index facets on basal and vicinal ZnO surfaces
11:00-11:30	Group Picture at 11 am., coffee break & discussions	
Heterogeneous catalysis and water research (chairs: E. Welter, W. Caliebe, P. Huber) - short introduction by speakers		
11.30-11.50	Alba Mendez	The H ₂ O ice VII - X transition studied by time-resolved x-ray diffraction in a dynamic Diamond Anvil Cell.
11.50-12.10	Manuela Borchert	Formation of tungsten hydrothermal ore deposits: In-situ insight using a hydrothermal autoclave and XAS
12.10-12.30	Manuel Brinker	Fluids in Porous Materials: From Self-Diffusion and Capillarity-Driven Transport to Sorption-Induced Deformation
12:30-14:00	Lunch break and Poster Session	
14:00-14.20	Stella Gries	Wafer-Scale Fabrication of Hierarchical Porous Silicon and Fused Silica by Means of Silver Nanoparticle-Catalyzed Chemical Etching
14.20-14.40	Akhil Tayal	Role of interfacial structure on the catalytic properties of bimetallic nanoparticles
14.40-15.00	Simon Chung	Shape and structural dynamics of an ensemble of Pd nanoparticles
15.00-15.30	Coffee break & discussions	
Quantum materials (M. Hoesch, L. Bocklage) - short introduction by speakers		
15.30-15.50	Hlynur Gretarsson	Excitonic magnetism in ruthenates
15.50-16.10	Meng-Jie Huang	Electronic structure and magnetic properties of double-perovskite La(CoNi)O ₃ : A combined X-ray absorption spectroscopies and LDA+U calculations
16.10-16.30	Pablo J. Bereciartua Pérez	MagStREXS: A Crystallographic Software To Analyze Magnetic Structures using REXS Diffraction Data
16.30-16.50	Christina Boemer	A novel prove for valence charges: x-ray wave mixing
16.50-17.10	Robin Engel	Ultrafast response of the NiO antiferromagnetic order to sub-gap optical excitation probed by FEL-based soft x-ray reflection spectroscopy
17.10-17.30	Markus Scholz	Capturing femtosecond electronic and structural dynamics at the molecule-2D quantum material interface
17:45	BBQ at the CXNS yard	
18:45-19:45	CXNS lab tours for all registered colleagues, meeting point is the bottom of the CXNS red staircase on the yard	