



Thermal Probe Workshop

Technical Program Wednesday 2nd April



08:30 Registration open
09:15 Opening remarks

Session I: Advances in Thermal Scanning Probe Lithography

Chair: Dr. Emine Cagin

09:30 **Dr. Armin Knoll**
IBM Research Europe – Zurich

Automation for high-resolution device fabrication using thermal scanning probe lithography

10:00 **Mr. Kartik Buddha**
Heidelberg Instruments Nano AG

t-SPL parallelization - A software perspective

10:30 **Mr. Oliver Barker**
University of Liverpool

t-SPL for the nano-conversion of ferromagnetic nano-islands

11:00 Coffee break

Session II: Nanoelectronics

Chair: Dr. Jana Chaaban

11:30 **Prof. Dr. Xia Liu**
Institute of Physics CAS, Beijing

Deterministic grayscale nanotopography for strained 2D field effect transistors

12:00 **Prof. Dr. Lukas Novotny**
ETH Zürich

Exciton-assisted electron tunneling in van der Waals heterostructures

12:30 **Poster Flash Talks**

Chair: Jonas Vergés

13:00 Lunch break & Posters

A.1. M.O.V.E.

Session III: Advanced Device Fabrication

Chair: Dr. Simon Bonanni

14:45 **Prof. Dr. Xiaorui Zheng**
Westlake University

Scanning probe technology for low-dimensional opto-electronics

15:15 **Ms. Karla Cordero Solano**
Max Planck Institute for Solid State Research

Contact resistance in nanoscale organic thin-film transistors

15:45 **Mr. Gabriel Natale**
Boston College

A new method of probing non-local transport in air-sensitive 2D superconductors

16:15 Coffee break

16:30 **Posters & Live Demos**
Momentum Space

Chair: Jonas Vergés

17:30 **Bus transfer to Social Event**
Technorama Winterthur

Bus leaves in front of Manufakt8048



Thermal Probe Workshop

Technical Program Thursday 3rd April



08:30 **Registration open**

Session IV: Low Dimensional Materials

Chair: Dr. Nicholas Hendricks

09:00 **Prof. Dr. Francesco Buatier**
University of Genoa

Engineering 2D-TMD nanoarchitectures via scalable and deterministic nanopatterning

09:30 **Prof. Dr. Michel Calame**
Empa

Integrating low dimensional materials for quantum technology

10:00 **Prof. Dr. Kelly Morrison**
University of Loughborough

NanoFrazor in a glovebox: in-situ patterning and analysis of devices

10:30 **Coffee Break & Posters**

Session V: Novel Patterning

Chair: Prof. Dr. Jürgen Brugger

11:30 **Dr. Dimitrios Kazazis**
Paul Scherrer Institute

EUV interference lithography for ultimate nanopatterning with photons

12:00 **Dr. Jian Gao**
AMOLF

Electrochemical nanopatterning using AFM: Directed metal deposition and pulse-modulated local anodic oxidation

12:30 **Ms. Elisabeth Erber**
Ludwig Maximilian University of Munich

Site-directed placement of DNA origami

13:00 **Group photo**

13:15 **Lunch Break & Posters**

A.1. M.O.V.E.

Session VI: Power of Grayscale Patterning

Chair: Dr. ZhengMing Wu

14:45 **Dr. Nolan Lassaline**
Technical University of Denmark

Shaping quantum landscapes in two-dimensional materials with thermal scanning-probe lithography

15:15 **Dr. Florian Döring**
XRnanotech

Advancing nanofabrication: Pushing the limits of diffractive optics with high-resolution lithography

15:45 **Dr. Lotfi Berguiga**
Institut des Nanotechnologies de Lyon

Laser writing on phase change material Sb₂S₃ thin layer

16:15 **Best Poster Award & Closing Remarks**
