

NanoLund Annual Meeting 2022

Materials – building the world

11 October 2022

Scandic Star Hotel, Glimmervägen 5, Lund

More information: www.nano.lu.se/annualmeeting2022

Program chairs: Maria Messing and Mattias Borg

08:30 – 08:55 Coffee and registration

Opening session

Chairs: Maria Messing, Mattias Borg

09:00 Welcome and opening by Heiner Linke, Deputy Dean, LTH and Chair of NanoLund Board

09:05 NanoLund update by Anders Mikkelsen, Director of NanoLund

09.40 Seedling project presentations

Linnéa Jönsson & Linnea Lindh

Tailored Metal Oxide Nanoparticles for improved solar cell electron extraction

Rubén Seoane Souto

Andreev bound states in the continuum

Mikelis Marnauza & Robin Sjökvist

In-situ growth of GaSb nanowires

Tania Lima

The role of nanoparticle size in Dectin-1 protein activation: a nano-approach to control host deleterious inflammation.

10.00 Pitching of selected posters

10:25 – 11:00 Coffee and posters

Organic and earth-abundant materials

Chair: Kimberly Dick Thelander

11:00 Karen Edler (Centre for Analysis and Synthesis, LU)

Formation of iron oxide nanoparticles in deep eutectic solvents

11.30 Martin Hjort (Chemical Biology and Therapeutics, LU)

Lithography-free conductive polymer nanowires

12.00 Simon Escobar (Centre for Analysis and Synthesis, LU)

Nanoscale routes to improve the synthesis of the earth-abundant photovoltaic absorber zinc phosphide

12.15 Jens Uhlig (Chemical Physics, LU)

The path towards a highly efficient and scalable photo-catalysis using silicon nanowires

12:30 – 13:40 Lunch and posters

Quantum materials

Chair: Martin Leijnse

- 13.40 Erik van Loon (Mathematical Physics, LU)
Metal-insulator phase transitions driven by electronic correlations
- 14.10 Elizabeth Blackburn (Synchrotron Radiation Research, LU)
The role of magnetic building blocks in multiferroic materials
- 14.40 Rubén Seoane Souto (Solid State Physics, LU)
Super-Semi-Ferro: a new platform for quantum technologies
- 14.55 Rousan Debbarma (Solid State Physics, LU)
Cooper pair transport in crystal-phase quantum dots with variable symmetry

15.10 – 15.40 Coffee and posters

Synthesis and Integration

Chair: Sara Blomberg

- 15.40 Johannes Svensson (Electromagnetics and Nanoelectronics, LU)
Template-Assisted Selective Epitaxy of InAs on W
- 15.55 Julia Valderas Guterrez (Solid State Physics, LU)
Enhanced optical biosensing with (aerotaxy) light-guiding nanowires.
- 16.10 Mehran Sedrpooshan (Synchrotron Radiation Research, LU)
Engineered Self-Assembly of Nanoparticles for Magnetic 3D Structures
- 16.25 Filip Lenrick (Production and Materials Engineering, LU)
Machining and joining industrial materials
- 16.40 Zhaojun Zhang (Synchrotron Radiation Research, LU)
Free-standing metal halide perovskite nanowire arrays with blue-green heterostructures
- 16.55 Philipp Gribisch (Electromagnetics and Nanoelectronics, LU)
Fabrication of quasi-vertical GaN FinFETs on SiC substrates
- 17.10 Jenny Rissler (Ergonomics and Aerosol Technology; LU and RISE)
Sustainable and safe – from research to waste

17.30 – 19.00 Posters and pre-dinner drink

19:00 Dinner, prizes and awards