



NES₂

The workshop aims to bring together experts and younger investigators on nanoengineered superconductors and vortex matter. The focus will be on charge and flux dynamics on the micro- and nanoscale, magneto-transport properties of superconductors, as well as their applications in magnetic-field sensing, single-photon detection, and hybrid quantum circuits.



Workshop topics include:

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- Vortex dynamics and fluxonic devices
- Vortex imaging and vortex phase diagrams
- Vortices in meso- and nanoscale systems
- Vortex pinning and its applications
- Josephson phenomena and weak links
- SQUIDs, their fabrication and applications
- Superconducting single-photon detectors
- Superconducting and hybrid quantum circuits
- Topological, 2D and interface superconductivity
- Novel superconducting materials and heterostructures
- Novel fabrication techniques for superconductors

A few introductory talks of tutorial character are planned in the beginning of topical sessions. The workshop will be hosted by the University of Vienna with support of the COST Action CA16218 "NanoCoHybri".

Scientific Advisory Committee:

Jan AARTS Yonathan ANAHORY Simon BENDING Annica BLACK-SCHAFFER Beena KALISKY Johann BLATTER Alexandre BOUZDINE Adrian CRISAN Szabolcs CSONKA Jeroen CUSTERS **Dimitre DIMITROV** Vladimir FOMIN Ali GENCER Isabel GUILLAMÓN Pertti HAKONEN Abdou HASSANIEN

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Workshop Chairs:

Oleksandr Dobrovolskiy Alina Ionescu **Dieter Koelle** Wolfgang Lang

Partners:





VANOSCALE COHERENT RID DEVICES SUPERCONDUCTING



Important dates:

- Registration and abstract submission due: April 11
- Notification of acceptance: April 20
- Workshop programme online: May 1

Registration for scholars due: May 5

- Upload of posters due: May 6
- Technical online checks: May 7-8
- Workshop dates: May 10-12

Website: https://nes21.univie.ac.at/ Email: nes21.physik@univie.ac.at