

# Midsummer School in QCD 2024

24 June – 6 July 2024  
Saariselkä, Finland

Register by  
31 January 2024



# Summer school on QCD in Finland

- QCD summer school on theory, phenomenology and experiments organized by Henning Kirschenmann, Kati Lassila-Perini, Kenneth Osterberg, Mikko Voutilainen, Tuomas Lappi and Christophe Royon
- When? during the bright Nordic summer nights, June 24 to July 6
- Where? Ivalo, beyond polar circle in Lapland
- First week focusing on theory, the second on phenomenology and experiments
- Proposed topics
  - Perturbative QCD: hard and high energy processes
  - Small  $x$  physics and saturation
  - Algorithms: jets, particle flow, machine learning
  - Event generators
  - Experiments and detectors: LHC, EIC and cosmic rays
- Web page: <https://indico.cern.ch/event/1134577/>

# Summer school on QCD in Finland: Main Lectures

- Machine learning - Thea Aarrestad
- High energy resummation and diffraction - Francesco Celiberto
- BFKL and low  $x$  physics - Grigorios Chachamis
- QCD and PDFs - Vadim Guzey
- Pythia and hands-on - Ikka Helenius
- Sherpa and hands on - Stefan Hoeche
- Introduction to QCD - Paul Hoyer
- High energy soft QCD and diffraction - Valery Khoze
- Saturation - Tuomas Lappi
- Hands on - Kati Lassila-Perini
- Herwig and hands on - Aidin Masouminia
- Small  $x$  and saturation - Al Mueller
- Forward physics - Paul Newman
- Forward detectors - Ken Osterberg

- CGC: vector mesons and diffraction - Jani Penttala
- Cosmic rays - Tanguy Pierog
- PPS and TOTEM results and prospects - Christophe Royon
- Physics at the EIC - Thomas Ullrich
- Jet energy scale - Mikko Voutilainen
- Hadronic physics and jets - Gregory Soyez
- Saturation - Raju Venugopalan