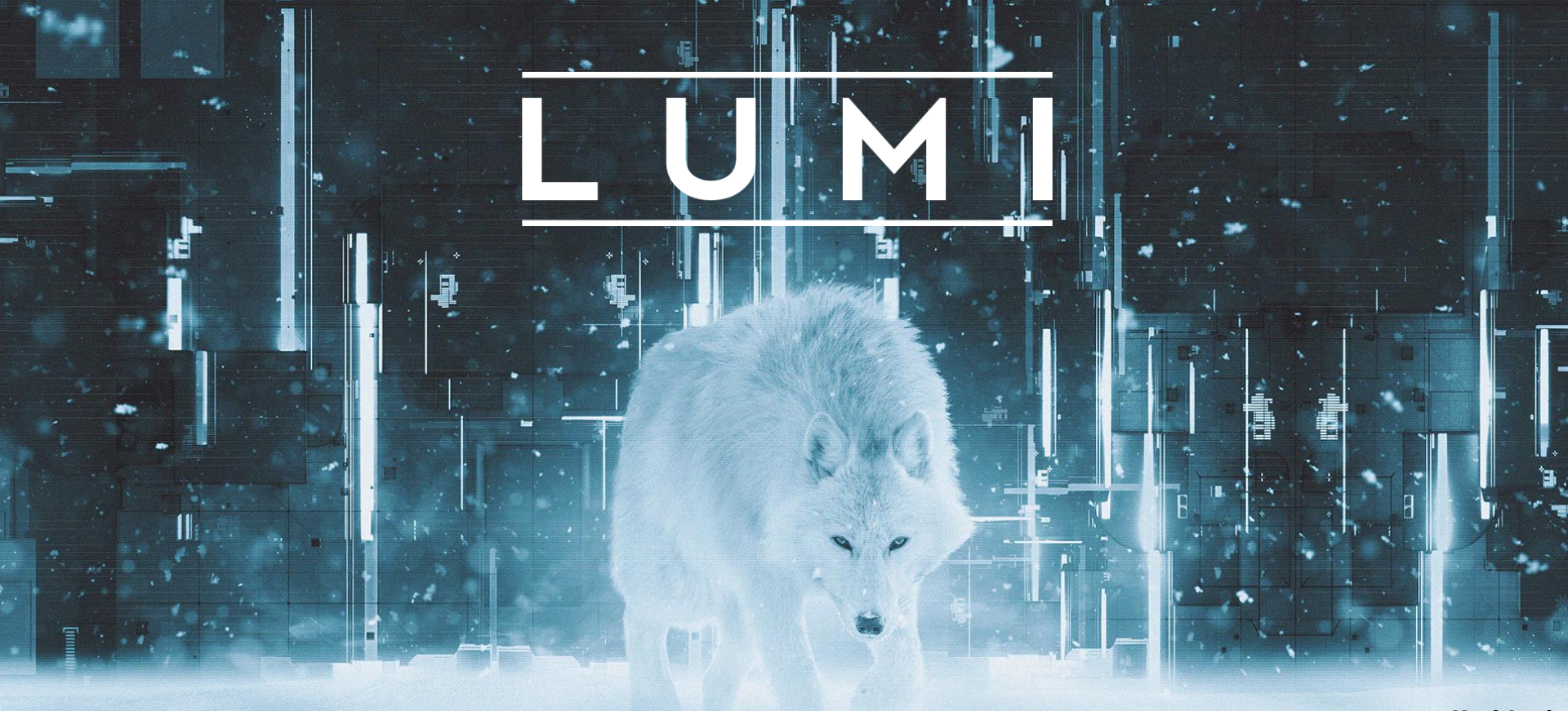


Welcome and Introduction

Kurt Lust
LUMI User Support Team (LUST)
University of Antwerp

April 2026

LUMI

Aim of the course

- An introduction to working on LUMI for people who already have some HPC knowledge
  - You should have had some introductory HPC training in your local organisation. E.g., some familiarity with batch processing is expected
  - Neither do we have the team on-line to answer very technical questions about, e.g., GPU programming on AMD either
    - Advanced and/or profiling and optimisation trainings with HPE and AMD experts on-site
    - Monthly virtual user coffee break also offers some opportunities to get in touch with experts from HPE and AMD
- Know enough to know where to (not) look for more information

Your trainers

- Emanuele Vitali: Working at CSC, partly in LUST but mostly for the EPICURE project
- Tuomas Luntilla: Working at CSC, partly in LUST
- Dan Jonsson: Working at UiT The Artic University of Norway, part-time LUST member
- Kurt Lust: Full-time LUST member, University of Antwerp, Belgium
- Līna Marta Sarma: RTU, will give a local presentation

Practicals

- There is a project for the course: project_465002764. This is only meant for making the exercises and not for your personal work.
- No questions via zoom, but you can write your questions in the HedgeDoc https://siili.rahtiapp.fi/LUMI-intro-course-april26?both
  - Questions are anonymous. But there is a limit to how much we can answer to such questions.
  - Please stay to the topic of the talk with your questions.
    The course is not meant to quickly give answers to all questions in the first hour after which you can leave. You can check in the schedule what other presentations are coming up.

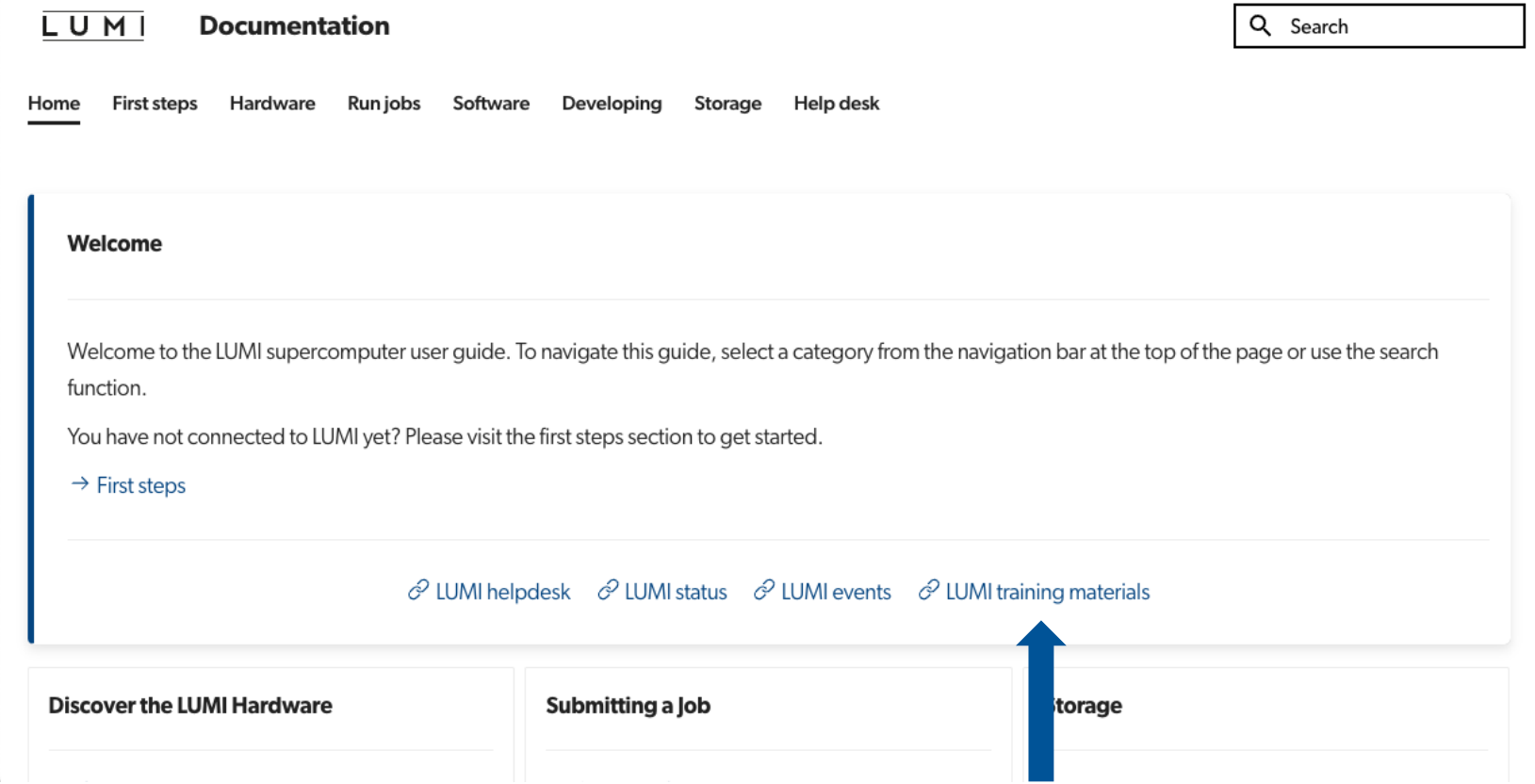
LUMI

HedgeDoc demo

Practicals (2)

- Course materials will be made available in the LUMI training materials archive site at lumi-supercomputer.github.io/LUMI-training-materials.
  - Exercises during the course
  - PDF of the slides
  - Notes for most of the talks, but for some of the talks the notes are based on a sligthly different version of the talk (from a different presenter)
  - Video recordings some time after the course (if they succeed)

docs.lumi-supercomputer.eu



Content

LUMI

- Day 1: Building blocks before we can run
  - LUMI architecture
  - LUMI system software and programming environment
  - How do we offer and access application software?
  - How can we log on to the system and transfer data?
  - How to contact support?
  - And a local presentation
- Day 2: 3 themes
  - Morning: Running jobs on LUMI
  - Afternoon:
    - Data on LUMI: Lustre and object storage
    - Containers on LUMI

LUMI

Acknowledgements

- This course is supported by the Latvian National Partnership Plan for PRACE (Project No. 1.1.1.5/3/24/I/004)
- Some of the development partly done in the framework of the VSC Tier-0 support project, funded by the Research Foundation – Flanders (FWO) as part of the VSC project.


LUMI
Enjoy the course!