

**LUMI Support and Documentation** 

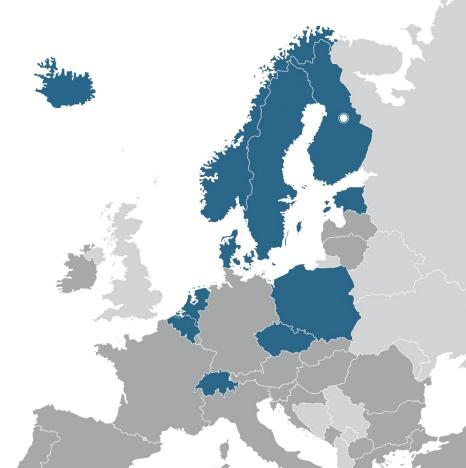
Jorik van Kemenade LUMI User Support Team (LUST) SURF

March 2025

# The LUMI user support model

LUMI

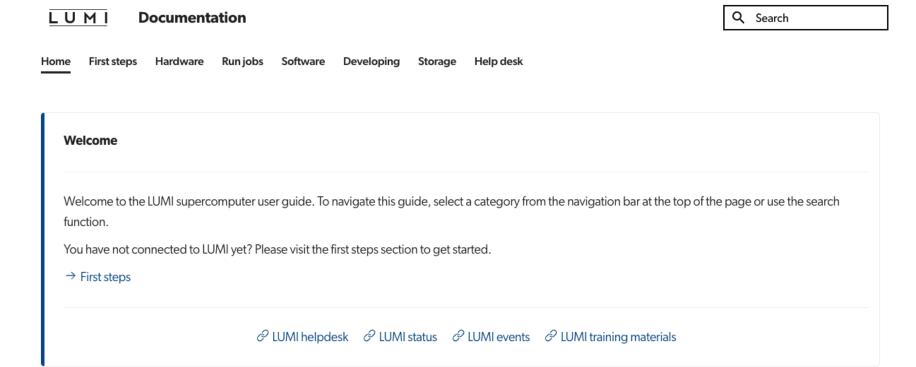
- L1 and basic L2 support provided by LUST.
- Additional support via local centres.
- Advanced L2 and L3 support via EPICURE.
- Porting and support for specific applications via EuroHPC Centres of Excellence
- Support for accounts and allocations via the Resource Allocators.



### Support level 0: Check the docs



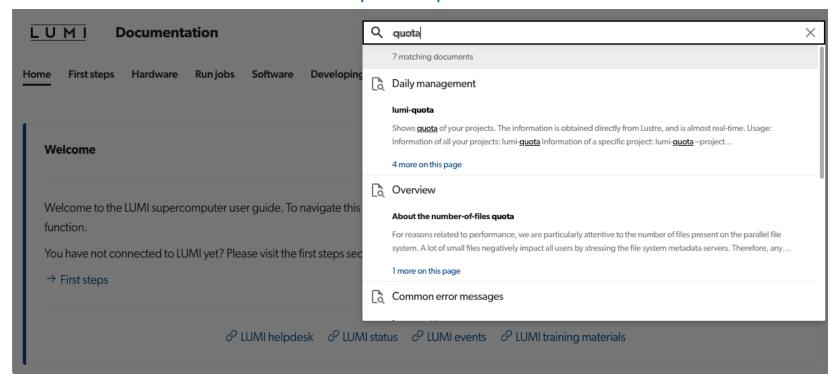
• Main documentation at <u>docs.lumi-supercomputer.eu</u>.



### Support level 0: Check the docs



• Main documentation at <u>docs.lumi-supercomputer.eu</u>.



# Support level 0: Check the software library



• Software overview on <a href="mailto:lumi-supercomputer.github.io/LUMI-EasyBuild-docs">lumi-supercomputer.github.io/LUMI-EasyBuild-docs</a>.

■ LUMI Software Library

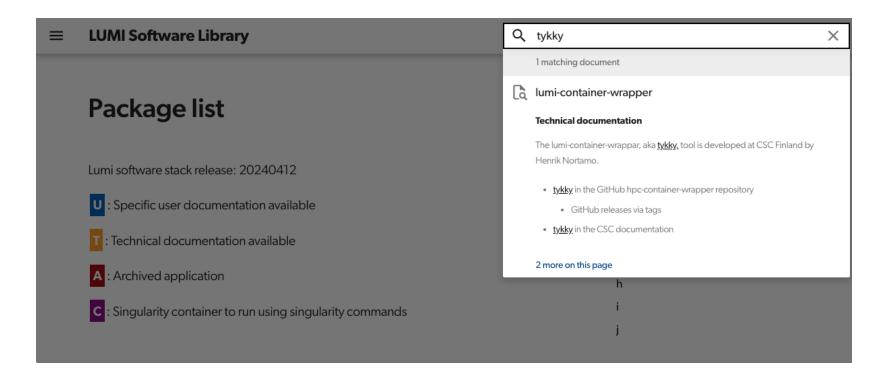
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# Support level 0: Check the software library



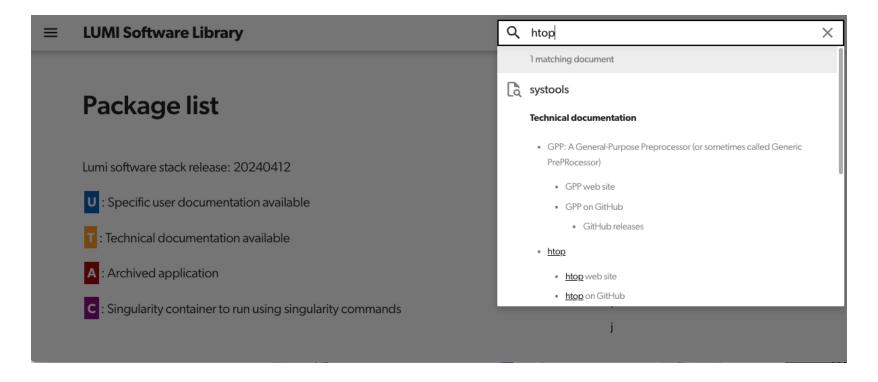
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# Support level 0: Check the software library



Software overview on <u>lumi-supercomputer.github.io/LUMI-EasyBuild-docs</u>.



# Support level 0: Check the training material



• Training materials on <a href="mailto:lumi-supercomputer.github.io/LUMI-training-materials">lumi-supercomputer.github.io/LUMI-training-materials</a>.



**LUMI training materials** 



#### **LUMI training materials** Home **User Updates** > User Coffee Breaks LUMI intensive March > 2025 Al workshop February > 2025 Supercomputing with > LUMI December 2024 Advanced LUMI October 2024 Hackathon October 2024 Profiling October 2024 Performance Analysis & Optimization June 2024 > Partner courses Archive

#### **Overview of LUMI trainings**

#### Organised by LUST in cooperation with partners

#### Regular trainings

Upcoming or currently running events with materials already partly available:

 LUMI Intensive: Comprehensive Intro and Advanced Workshop (March 3-7, 2025)

Most recently completed main training events:

 Introductory LUMI training aimed at regular users: Intro to Supercomputing with LUMI (December 10-11, 2024)

Short URL to the most recently completed introductory training for regular users: lumi-supercomputer.aithub.io/intro-latest

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Organised by LUST in cooperation with partners

Regular trainings

LUMI User Coffee Break Talks

Recent courses made available by LUMI consortium partners and CoEs

Course archive

LUST-provided regular trainings

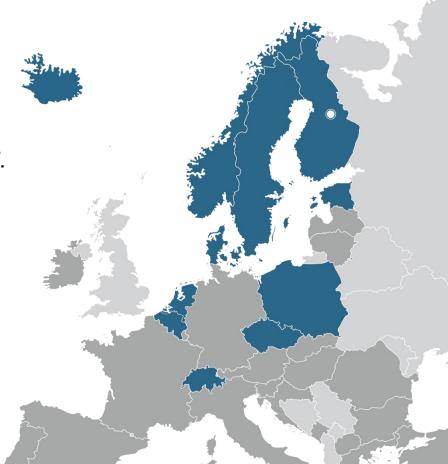
Courses made available by LUMI consortium partners and CoEs

Information for local organisations

# Getting help from LUST

LUMI

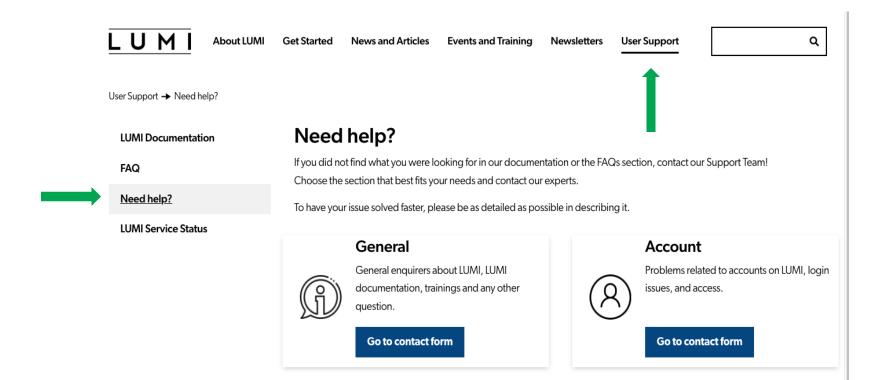
- LUMI User Support Team (LUST)
- 1 FTE per LUMI consortium country.
- Some problems get passed on to HPE or AMD
- Work hours Monday-Friday 8:00-18:00 CE(S)T.



### Getting help from LUST



• Contact: <u>lumi-supercomputer.eu/user-support/need-help</u>



# Getting help from LUST





#### **Documentation**

First steps Hardware Run iobs Software Developing Storage Help desk Help desk Help Desk Help desk Training and events Known issues The LUMI User Support Team (LUST) is here to help! LUMI service status If you have any questions or problems using LUMI, please do not hesitate to contact Mailing list archive us. You may find our contact forms for different issues by clicking the 'Contact us' button:



The LUMI helpdesk is open every weekday from Monday to Friday except during Finnish bank holidays:

	CE(S)T	EE(S)T	UTC (Summer)
Start	8:00 AM	9:00 AM	7:00 AM (6:00 AM)
End	6:00 PM	7:00 PM	5:00 PM (4:00 PM)

Q Search

### How not to write a ticket



Subject: Problems on LUMI



Too vague. All we see is a number and a subject...

Hi,

I have problems logging in on LUMI. Can you help me?

Thanks,

John Doe



There are 100s of reasons for not being able to log in, some of them not even related to LUMI so we really need more information.

### How to write a ticket



Subject: Userid jdoe cannot login anymore using Windows Powershell ssh command

Hi,

Since this week (tried yesterday morning and today) I cannot login to LUMI with my userid jdoe (project\_465000000). Last week ago I could still login and I see no changes in my .ssh directory on my PC. I am using the ssh command provided in Windows Powershell. The error I get is:

ssh lumi

jdoe @lumi: Permission denied (publickey,gssapi-keyex,gssapi-with-mic,password,hostbased)

I use the same key on our local cluster without any problems.

Thank you in advance for any help or advice on how to solve this,

John Doe

### 1 ticket = 1 issue



- Do not bundle multiple very different issues in a single ticket.
- Do not submit multiple tickets for a single issue.
- Avoid reusing subject lines for new tickets.
- Avoid reopening tickets that have been closed long ago.
- Do not use old tickets with new issues.

# Provide a descriptive & specific subject



- We have two identifiers: mail address and subject
  - Use consistently the same company/university mail address for tickets.
  - Make your subject line descriptive and likely unique. We use the subject line to distinguish between tickets we're dealing with.
- Include relevant keywords:
  - Userid and way of logging in for login problems,
  - Names of software packages for software installations or crashes.
- Examples of good subjects:
  - User abcdefgh cannot log in via web interface
  - ICON installation needs libxml2
  - VASP produces MPI error message when using more than 1024 ranks

### **Provide context**



- Provide information to understand who you are:
  - name, userid (certainly for login problems),
  - project (LUST only knows LUMI project numbers).
- Describe the original problem and intent.
- Tell us your goal.

# Beware of the XY-problem!



- Quoting from <u>xyproblem.info</u>:
  - User wants to do X.
  - User doesn't know how to do X, but thinks Y is a good first step.
  - User doesn't know how to do Y either and gets stuck.
  - User asks for help with Y.
  - Help desk tries to help user with Y, but is confused because Y seems like a strange problem to want to solve.
  - After much interaction it becomes clear that the user really wants help with X, and that Y wasn't even a suitable solution for X.
- So
  - Describe your original problem and intent.
  - Prompty provide information when the help desk asks you, even if you think it is irrelevant.
  - If some solutions are ruled out, share why as this may provide additional information about what you really want.

### **Provide information**



- What worked so far? If it ever worked, was this before a system update?
- What do you think you have changed?
- What did you already try to solve the problem?
- What software did you use, and how was it installed?
- Environment:
  - Which modules are you using?
  - Do you have special stuff in .bashrc or .profile?
  - For problems running jobs: the batch script
- How can we reproduce the problem? A simple and quick reproducer speeds up the time to answer your ticket!

### Take our restrictions into account



Help desk team members have no elevated privileges on LUMI

- We cannot access user files .
- Cannot install or modify system packages or settings.
- Cannot extend walltime of jobs.
- LUST is in close contact with the sysadmins, but they are busy people also and will not promptly deal with any problem

### What LUST can't do



- LUST does not replace a good introductory HPC course.
- LUST is not a search engine for the documentation
- LUST cannot help with getting or changing your allocation.
- LUST is not there to debug or further develop code for you.
- LUST cannot do much complete software installations.

### What LUST can't do



"LUST did not support me well as they could not solve my compiler problems."

I want to simulate hydroxypropylcellulose in GROMACS. How do I set this up?

My code crashes with error message "..." but I cannot give you the code because it is proprietary and I also have no reproducer for you. Tell me what's wrong.

### What LUST can do!



- LUST can support compiling and installing software.
- LUST can help with login issues.
- LUST can help with questions regarding compute and storage use.
- LUST can help with analysing the source of crashes or poor performance
- LUST has some resources for work on porting and optimizing AMD GPU codes via porting calls and hackathons

### What LUST can do!



Supercomputer support is there to support you in the computational aspects of your work related to the supercomputer but not to take over your work.

