

What else?

A brief discussion about what else LUST offers, what is not covered in this course, and how you can learn about it.

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

4 March 2025

What did we not cover yet?



- For several topics, this introductory part gave only a brief overview with many details omitted
- General topics not covered at all:
 - Guidelines for writing HPC-friendly code Some elements to come
 - Debugging and profiling tools More to come
 - Only some performance issues were touched More to come
 - Developing (portable) code for GPU and optimising that code Some hints to come
- And it is not a very domain-specific course (well, the domain is "LUMI supercomputer" and not CFD or molecular dynamics or AI)
 - We do provide an AI-oriented training until other EuroHPC AI projects take over.
 Next one possibly in the Netherlands at the end of May

Non-LUST trainings



- PRACE coordination is no more, EuroHPC is starting up an effort
 - For now overview by CASTIEL: www.eurocc-access.eu/services/training
 - Courses about tools, about programming paradigms, ...
- AMD provides trainings in Europe from time to time
 - Latest edition was a course for HLRS in April 2024
 - Excellent materials from a course at ENCCS, with recordings on YouTube
- LUMI consortium countries also organise courses from time to time
 - E.g., in January 2024 there was a GROMACS course at CSC in collaboration with <u>BioExcell</u> and the EuroHPC national competence centres of Finland and Sweden
 - Some of those courses are also announced on the LUMI web site
- Not clear yet what the "AI Factories" and MINERVA will provide

Other LUST services



- "Hackathon": No specific theme, but for optimisation of your code with the help of experts from HPE, AMD and LUST
 - One week, so a clear goal is needed
 - Aim for two this year, first one in May in Oslo
- Porting call: When resources allow, we also launch a call for assistance in porting code
 - Assitance = you guarantee availability of people in the time window
 - Help from experts at HPE, AMD and LUST
 - Selection partly based on potential impact of the code
- Monthly virtual user coffee break
 - Usually last Wednesday of the month
 - Often with a short presentation
 - Experts from HPE and AMD also present

Other support services



- Check with your local organisation as some have support programs
- EPICURE program (<u>epicure-hpc.eu</u>)
 - Larger support projects: 1-3 personmonths from EPICURE, and expect a similar effort from the applicant during that period
 - Need a EuroHPC project, but a development project is enough
 - Can go from (help with) optimising a complex software installation, to help with optimising and porting your own codes for EuroHPC supercomputers
 - Don't expect domain knowledge about every science domain and all software packages!

LUMI web sites



- Main LUMI web site at <u>lumi-supercomputer.eu</u>
 - Links to information on obtaining an allocation and to training events
- Documentation split in three:
 - <u>docs.lumi-supercomputer-eu</u>: Everything except documentation that is very specific to a single package
 - <u>LUMI Software Library</u> at <u>lumi-supercomputer.github.io</u>: Package-specific information for all software for which we have some support
 - <u>LUMI AI guide</u> on GitHub
- <u>LUMI training materials</u> at <u>lumi-supercomputer.github.io</u>: Archive of past LUMI trainings and user coffee break presentations
 - Not all materials online, some only available on LUMI
- Some local organisations have documentation that is relevant to LUMI
 - We link to it if it is a real addition to our materials and we know about it

