

# Introduction to Supercomputing at JSC - Theory & Practice (ONLINE course)

Dienstag, 21. Mai 2024 bis Freitag, 24. Mai 2024 | 13:00 Uhr bis 17:00 Uhr

[Jülich Supercomputing Centre](#) | 52425 Jülich, Wilhelm-Johnen-Straße

This course offers the opportunity to attend lectures selectively, based on individual needs and knowledge levels. Participants are not required to attend all sessions as some may cover advanced or basic material. While flexibility is offered, it is important to assess personal needs and choose sessions accordingly, as attending lectures out of order may result in knowledge gaps.

Research Centre Jülich provides cutting-edge high-performance computing resources to scientific groups and industry partners across Germany and Europe via the John von Neumann Institute for Computing. To help new users of JSC's supercomputers efficiently leverage their allocated resources, we offer an introductory course that covers system basics and best practices.

The course includes theoretical lectures held every afternoon from Tuesday to Friday, and hands-on offered in the mornings from Wednesday to Friday. The hands-on are based on the previous afternoon's lectures and allow participants to put theory into practice. The hands-on sessions cover a wide range of topics, from basic login procedures to advanced techniques. For the more experienced, there's the option of bringing your own code or discussing current challenges with JSC experts, ensuring a tailored and interactive learning experience.

Topics covered include:

- User account management with the JuDoor portal
- System access via SSH, Jupyter, and UNICORE
- System configuration for JURECA and JUWELS
- File systems, I/O, and data management
- Software modules (compilers, MPI, math libraries, applications, debuggers, tools)
- Building software from source
- Submitting jobs via the resource manager
- Using GPUs
- Performance tuning
- Deep Learning
- Visualization

Veranstalter:  
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<https://fz-juelich.de/jsc>

Weitere Informationen: <https://go.fzj.de/2024-supercomputing-1>