

Seminar

HPC Lab · CDS

Wednesday, November 29, 2023

4–5:30 p.m.

Seminar Room 1

Mathematical Institute

University of Cologne

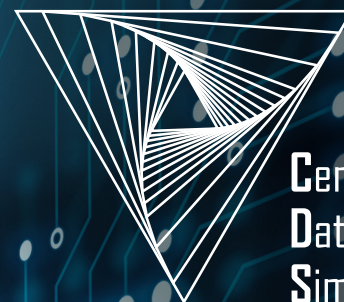
Weyertal 86–90

Speaker:

Jens Henrik Göbbert

Jülich Supercomputing Centre (JSC)

Forschungszentrum Jülich



Center for
Data and
Simulation
Science



JUPYTERLAB

HOW JSC ENABLES SUPERCOMPUTING IN THE BROWSER

Interactive exploration and analysis of large amounts of data from scientific simulations, in-situ visualization and application control are convincing scenarios for explorative sciences. Based on the open source software Jupyter or JupyterLab, a way has been available for some time now that combines interactive with reproducible computing while at the same time meeting the challenges of support for the wide range of different software work-

flows. Even on supercomputers, the method enables the creation of documents that combine live code with narrative text, mathematical equations, visualizations, interactive controls, and other extensive output. However, a number of challenges must be mastered in order to make existing workflows ready for interactive high-performance computing. With so many possibilities, it's easy to lose sight of the big picture.

