



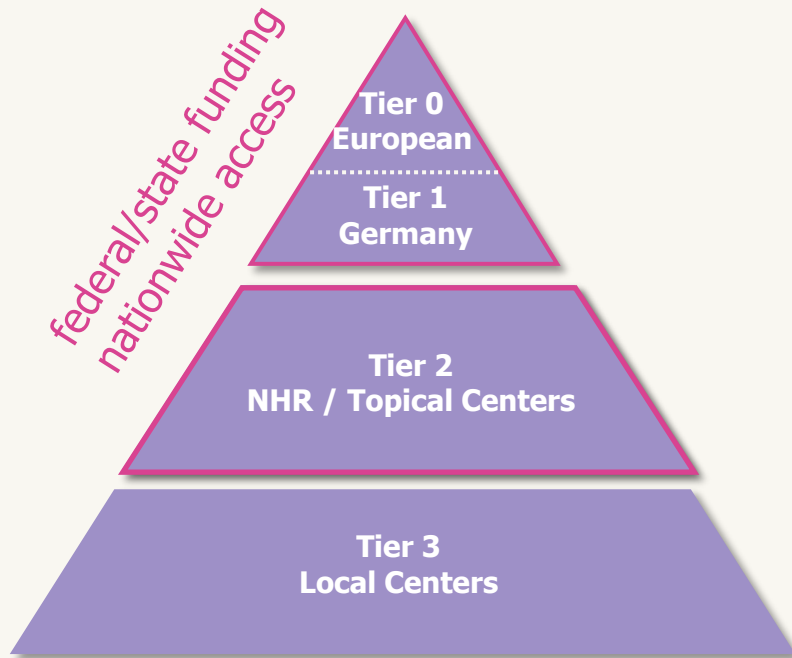
NATIONALES
HOCHLEISTUNGS
RECHNEN

NHR – HPC for Scientists

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NHR as Part of German HPC Infrastructure



- NHR – Nationales Hochleistungsrechnen
- HPC – High Performance Computing
- Key aspects
 - joint federal/state-funding
 - transition from regional to competence-oriented for nationwide use
 - **free access** for all researchers from **German universities**
 - strengthen methodological competences through coordinated training, continuing education of users
 - specific support for young scientists

Verein für Nationales Hochleistungsrechnen, NHR-Verein e.V.



Members

- Rhein-Westfälische Technische Hochschule Aachen
- Zuse Institut Berlin (ZIB)
- Technische Universität Darmstadt
- Technische Universität Dresden
- Friedrich-Alexander-Universität (FAU) Erlangen-Nürnberg
- GWDG/Georg-August-Universität Göttingen
- Karlsruher Institut für Technologie
- Johannes Gutenberg Universität Mainz für das Konsortium Süd-West (Goethe-Universität Frankfurt, Rheinland-Pfälzische Technische Universität Kaiserslautern-Landau, Johannes Gutenberg Universität Mainz, Universität des Saarlandes)
- Universität Paderborn

NHR Resources – Usage/Proposals



Who? Every scientist (PhD) of a German university

Where to compute? At each of the NHR centers

Where to apply? Single Point of Entry
<https://www.nhr-verein.de> → services
→ joint application portal (JARDS)



- Standard project classes: Test / Normal / Large
- Notification after three months latest (Large projects 3 M after deadline)
- Low-threshold access : "NHR - Starter projects" since October '23
 - limited resources for one year
 - Users should be enabled to submit a standard application after this year

Application Support – Coordination of all NHR Centers

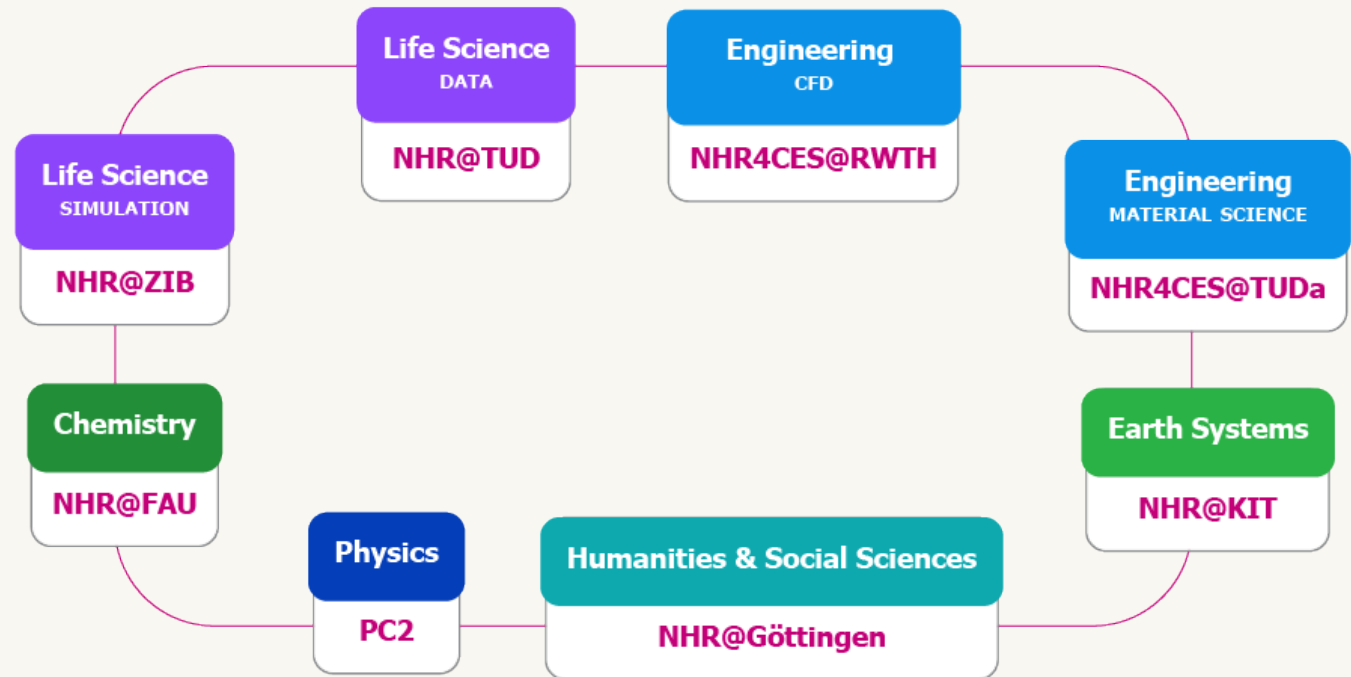


e.g. physics:

- **coordination:** PC2
- **involved Centers:** NHR@FAU, NHR@KIT, NHR@ZIB, NHR-SW, NHR@TUD, NHR@TUDa, NHR@RWTH, PC2
- **one** contact adress:
physics@nhr-verein.de

→ nhr-verein.de > services

(Currently in development)



Strengthening methodological competence

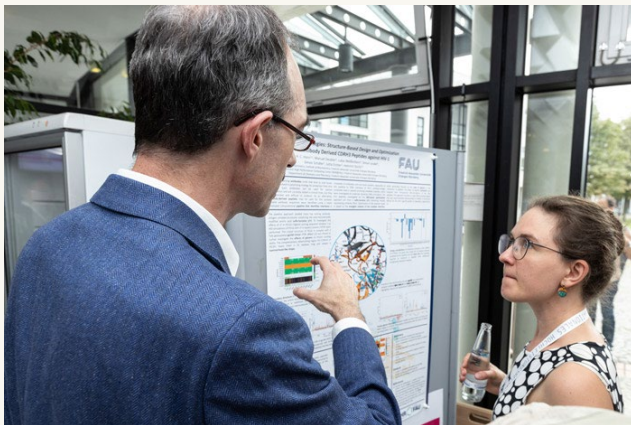
- wide range of courses and workshops
 - Relevant **HPC topics** and different **levels of knowledge**
 - **NHR wide coordination**: regular meetings of the trainers → integration of country networks desired
- Announcements via
 - Mailinglist → go-nhr.de/nhr-announcements
 - Website → <https://www.nhr-verein.de/en/courses-and-workshops>
 - Local lists of centers



NHR Conference series – every year

Scientific Conference:

- promoting scientific exchange among the HPC-user community
- high-quality invited lectures
- each year the focus will be on different scientific topics
- exchange ideas with the consulting and operational teams of the NHR-centers



NHR Conference'24 in Darmstadt, Sept. 9-12

- Scientific topics: *Computational Engineering, Material Sciences, AI and Simulation*
- Invited + Contributed **Talks**
- **Poster** Session
- **Panel-Discussions**
- Call for contributions will coming soon

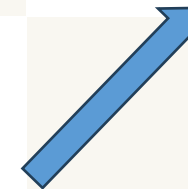


AI – From Laptop to Supercomputer

Joint campaign of NHR with GCS (Gauß-Centre for Supercomputing)

- Introductory webinars - next will be announced
- **Weekly Q&A web café – every Thursday, 14:00-15:00**
- Easy access to limited resources (NHR-Starter projects)
- **Landing page:**

<https://www.nhr-verein.de/en/ai-supercomputers>



NHR Graduate School

- Annual award of 9 full-time scholarships
- 2200 EUR per month for three years
- Yearly summerschool (2022 Berlin, 2023 Paderborn, 2024 Dresden)
- 3rd Cohort will start April 2024
- Next call in Summer 2024

• More information:

- <https://www.nhr-verein.de/en/graduate-school>



NHR for HPC-Operators/Experts



- GöHPC Admin Tea (GöHAT) a monthly meeting of administrators working in HPC
- Performance Engineering Group
- Several joint NHR projects to foster HPC in Science

For more information subscribe to NHR announcement list: <https://go-nhr.de/nhr-announcements>

Get in touch with us

- Visit our website: <https://www.nhr-verein.de/en>
- Follow us at LinkedIn: <https://de.linkedin.com/company/nhr-verein>
- Subscribe to NHR announcement list: <https://go-nhr.de/nhr-announcements>
- Meet us at ISC 2024, May 13-15, Hamburg, **Booth#J10**



- Join **NHR Conference '24, Sept. 9-12** in Darmstadt
- **Invite us to your conferences:** geschaeftsstelle@nhr-verein.de