

Fact sheet on applications for NHR4CES computing time projects

Computing time contingents

Scientists from German public or government-approved universities can apply for various computing time contingents:

- Continuous application is possible for so-called PREP-projects and projects with contingents of up to 12.0 Mio. Core-h per year.
- Four times a year prospective users can apply for computing time for large contingents from 12.0 Mio core-h per year up to 50 Mio. core-h per year. The dates for the next call can be found on the [NHR4CES website](http://www.nhr4ces.de).

Formalities

Eligible are scientists from German public or government-approved universities. The principal investigator (PI) of a project must have a proven scientific record (preferable a PhD or comparable degree) and must be able to successfully accomplish the proposed tasks.

Projects which will expire in the ending allocation period can be extended in the upcoming allocation period. On-going projects cannot be extended in the upcoming call.

The call deadlines are strict deadlines, requests for applying after the call deadline will be moved to the next call (i.e., three months later). Applications that do not use the required templates for the project description and the status report (see section Online application below) might be rejected.

Available systems and resources per call are either CLAIX-2018 (Aachen) or Lichtenberg II (Darmstadt). The application for computing time is handled by the corresponding location.

	RWTH AACHEN UNIVERSITY		TU DARMSTADT	
	CLAIX-2018	CLAIX-2023 (in preparation)	Lichtenberg II Ausbaustufe 1	Lichtenberg II Ausbaustufe 2 (in preparation)
# compute nodes for projects	1032 std. nodes + 48 GPU nodes + 221 + 6 Tier-3 nodes	406 std. nodes + 31 GPU nodes + 220 + 5 Tier-3 nodes	630 std. nodes + 2 big-MEM + 8 GPU nodes	572 std. nodes + 2 big-MEM + 7 GPU nodes
Processor type	Intel Xeon Platinum 8160 (Skylake)	Intel Xeon Platinum 8468 (Sapphire Rapids)	Intel Xeon Platinum 9242 (Cascade Lake AP)	Intel Xeon Platinum 8470Q (Sapphire Rapids)
# cores per node	48	96	96	104
Main memory per node [GB]	192	256 - 1042	384 - 1536	512 - 2048
Theoretical peak performance CPU	3.55 PFlop/s	4.4 PFlop/s	4.5 PFlop/s	ca. 4.0 PFlop/s
LINPACK performance	2.04 PFlop/s on 2014 nodes	-	3.15 PFlop/s	-
# GPUs	2x NVIDIA V100 per GPU node	4x NVIDIA H100 per GPU node	4x4 Nvidia V100 4x4 Nvidia A100 3x8 Nvidia A100	2x4 Nvidia H100 5x4 Intel PVC
GPU theo. peak perf. (DP/64bit)		4.9 PFlops/s	424 TFlop/s	ca. 1312 TFlop/s
Capacity of HPC filesystem	10 PByte		6 PByte	
Bandwidth of HPC filesystem	150 GB/s		ca. 1216 GB/s	

Online application

Please fill out the sections of the online application form considering the following information:

- Section Scientific objectives: Please fill out the point "Other applications for computing time" carefully - incomplete information may lead to a significant cutback of resources or even to the rejection of the proposal. Please provide this information in the online form only and not in the project description.
- Section Upload files: Please use the latest versions of the sample documents and observe the guidelines. You must address comments and questions from the reviewers of your previous proposals in the corresponding new section of the status report. Please be aware that the description is limited to 10 pages (font 11pt) and 60MB, the status report is limited to 2 pages (font 11pt) and also 60MB.
- Section Finalize: After pressing the FINALIZE button you will get back to the application list. Here you can find this application in the list of "finalized applications". If you apply for computing time on CLAIX, please print this form, sign it and send it to the office in [Aachen](#) by email. If you apply for computing time on Lichtenberg, please print the application form and, if applicable, the PI agreement, sign it and send it to the TU Darmstadt Computing Center for the Allocation of Computing Time by post (Technische Universität Darmstadt, Hochschulrechenzentrum, HPC Gruppe, Karolinenplatz 5, 64289 Darmstadt). You can additionally send a digital copy of the signed form to hhlr@hrz.tu-darmstadt.de in order to expedite the process.

Collection of relevant links

[Call information](#)

[Guidelines](#)

[HPC systems](#)

Templates for project descriptions

[Word](#)

[LaTeX](#)

[PDF](#)

For PREP-projects please use this shorter version:

[Word](#)

[LaTeX](#)

[PDF](#)

Templates for status and final reports

[Word](#)

[LaTeX](#)

[PDF](#)