



Application Form for HPC-Authorization

(Prerequisite is an existing Employee/Student/Guest Account. Please send this form to the scientific support)

1. Personal Data	Existing Account: _____
<input type="checkbox"/> Research Assistant (WMA, WHK, WHF)	
<input type="checkbox"/> Student, registration number: _____	
<input type="checkbox"/> Private Lecturer <input type="checkbox"/> Non-Academic Staff	<input type="checkbox"/> Other Applicants
Title: _____	Salutation: _____ Date of Birth: _____
Family Name: _____	First Name: _____
Private Address: _____	

Nationality: _____	
Phone: _____	E-Mail: _____
Official Information:	
University / Faculty or Department: _____	

Institute / Chair / Seminar: _____	

Phone: _____	Fax: _____
E-Mail: _____	

2. Types of Use
Authorization to use the HPC clusters is possible for:
a) Research projects predominantly financed by public funds for universities of the federal state Nordrhein-Westfalen
b) Third-party fund-based research projects predominantly financed by public funds of the EU, the federal government of Germany, the federal state Nordrhein-Westfalen, DFG or any other foundation, and run by researchers of a university of the federal state Nordrhein-Westfalen

3. Project

End of Project: _____

- Thesis (Bachelor, Master ...)
- Dissertation
- Habilitation
- Research Project, supported by: _____
- Other Projects

Title of Project: _____

Authorization needed

- HPC-Authorization

Please provide a description of your project in a separate paper. Information on that can be found on the last page of this document.

- Trial Account

The trial account allows the use of HPC resources for up to 1000 CPU hours, for example to gain the practical knowledge and constitute full HPC authorization. In this case, a short reference would be adequate: _____

At the end of the project, a report should be made available to the RRZK (including publications, which the use of RRZK resources contributed to). The RRZK reserves the right to demand short reports on the status of use of RRZK resources even during the running project.

Background of such project descriptions and reports is the duty of the RRZK as funded institution to report to the DFG as well as the recommendations of the science council. Both demand High Performance Computing with „outstanding scientific quality and national significance“.

The requested project descriptions and reports help us to justify the need for HPC and thus to keep up high-quality HPC resources at RRZK.

4. Declaration on Use

I agree to change my password at regular intervals. I have read and accept the regulations of the RRZK (<https://rrzk.uni-koeln.de/benutzungsordnung.html>). I also agree that my above stated data and data arising from usage is stored and processed – exclusively for administrative and support purposes – in accordance with the privacy policy (<https://www.portal.uni-koeln.de/datenschutz.html>) at the University of Cologne. In particular, I herewith give my permission that for purpose of holding off undesired email (SPAM) or infected programs (viruses, trojans etc.) suspicious emails can – according to state of affairs – be rejected, marked, blocked or extinguished if necessary by technical systems of the RRZK. I agree to the subscription of my email account account@uni-koeln.de to the HPC mailing lists and will read the emails on this account or set a forward on the mail portal (<https://mailportal.uni-koeln.de>) in order to receive important information (maintenance of the cluster, expiration of the account). Moreover, I herewith declare that I will not store any private data on the HPC storage.

Date, Signature _____

5. Confirmation

(To be filled by a professor or an authorized person of the institute, the university or research department.)

The correctness and the completeness of the above information are approved.

Title: _____ First Name: _____ Family Name: _____

For institutes/seminars/chairs of the University of Cologne, please indicate the cost center:

University / Faculty or Department / Institute: _____

Address: _____

I agree that my above stated data is stored and processed – exclusively for administrative and support purposes – in accordance with the privacy policy (<https://www.portal.uni-koeln.de/datenschutz.html>) at the University of Cologne.

Date, Signature, Seal _____

Instructions for providing the project description

Background of the project description is the duty of the RRZK as funded institution to report to the DFG as well as the recommendations of the science council. Both demand High Performance Computing with „outstanding scientific quality and national significance“.

The required project description helps us to justify the need for HPC and thus to keep up high-quality HPC resources at RRZK.

The topics given below are only examples and do not necessarily apply to every project. Further characterizations of the project are of course possible.

HPC-Project Description (Example)

Name of project, project participants, date

Abstract

Please insert a short summary (about 200-300 words) here.

Scientific background

Please give a short introduction to the project's work and motivation. Describe the scientific background of the project and the importance of the research work. Please mention if the project has already been evaluated elsewhere (DFG or similar) and include the appropriate documentation (grant number, references).

Please also mention which publications were produced with use of RRZK resources in the past. Illustrations are always helpful.

Methods and programs used

We want to support the implementation of your project. Therefore, it is helpful for us to know which algorithms and programs you are using. Is the source code available? Do you use your own, free or commercial programs? Do you use numerical or other libraries? Which programming languages and which parallel programming models are employed? Which simulations have you performed so far? On which platforms? How many CPUs/cores have you used? How does your program scale?

Resource requests

In addition to the information from the previous sections, you should describe the type and amount of resources needed. Please include appropriate calculations and estimations (e.g. for CPU time or main memory). Possible topics:

- Cluster (CHEOPS, Raptor, Odin, ...)
- Compiler (Intel, GNU, PGI, ...)
- Mathematical libraries (MKL, NAG, ...)
- Application software (Gaussian, BLAST, MATLAB, ...)
- Programming model (OpenMP, MPI, parameter study with many serial runs, ...)
- Number of nodes/cores, amount of main memory for typical runs
- Requirement for disc storage (home, project, scratch directory) and backup/archive data storage (size, duration)
- Requirement for overall CPU time
- Do you need to visualize large data sets?
- Do you have specific needs for pre-/postprocessing, tools for program development, analysis or optimization?

References

[1] Programming languages - C++, ISO/IEC 14882