Quick Reference Card for Paderborn Center for Parallel Computing, PC²

Guidelines for the Application, Approval and Allocation of HPC-Resources at Paderborn Center for Parallel Computing, PC²

https://pc2.uni-paderborn.de

document created by https://hpc.dh.nrw

HPC.NRW

Paderborn Center for Parallel Computing

Detailed information with an interactive guide for a project application is available at https://pc2.de/go/access.

Project Preparation

1. Detailed information for application to access HPC systems at PC² can be found at https://pc2.de/go/access.
2. Estimate the needed resources. If need is unknown or unsure, request a **test project** or **NHR-Starter project** by contacting PC² support.
3. Select project category according to the flow chart on the next page.
4. For **NHR normal project** and **NHR large project**:
   - collect information on scaling of programs or perform scaling analysis
   - compose detailed project description (https://pc2.de/go/hpc-proposal-forms)

Proposal Submission

1. Visit https://pc2.uni-paderborn.de/system-access/step-3-apply-for-resources and follow the documented guides
2. In case of questions contact PC² support
3. After submission of the proposal you will receive a summary by mail that has to be signed by the PI and PA/PC and send to PC² support (qualified electronic signatures are allowed).

Formal Evaluation

- PC² checks the formal aspects of the project.
- PI and PA/PC will be contacted by PC² if questions or problems come up.
- Duration of evaluation: a few days.

Technical Review

- HPC experts at PC² check your proposal for technical feasibility (availability of requested resources, software, ...) and contact PI and PA/PC if problems or questions arise.
- Duration of evaluation: a few days.

Scientific Review

- For **test project** and **NHR-Starter project**: not required
- For **small project**: scientific review by experts from PC², usually takes a few days
- For **NHR normal project** and **NHR large project**: scientific Single-blind review by external experts from the field of the proposal with at least two reviews per proposal, usually takes a few weeks

Resource Allocation and Monitoring

1. The RAB of PC² decides on allocation of resources for your project.
2. You will be informed by mail about the approval/refusal and the granted resources.

- PC² offers courses on usage of Linux, HPC systems and other HPC topics at https://pc2.de/go/hpccourses.
- Details about support can be found at https://pc2.de/go/support.
- The PI and PA/PC will receive monthly summaries on used compute time and file system quota per mail.
- Every member of a project can view project statistics, scheduling priorities and file system usage with the command line tool **pc2status**.

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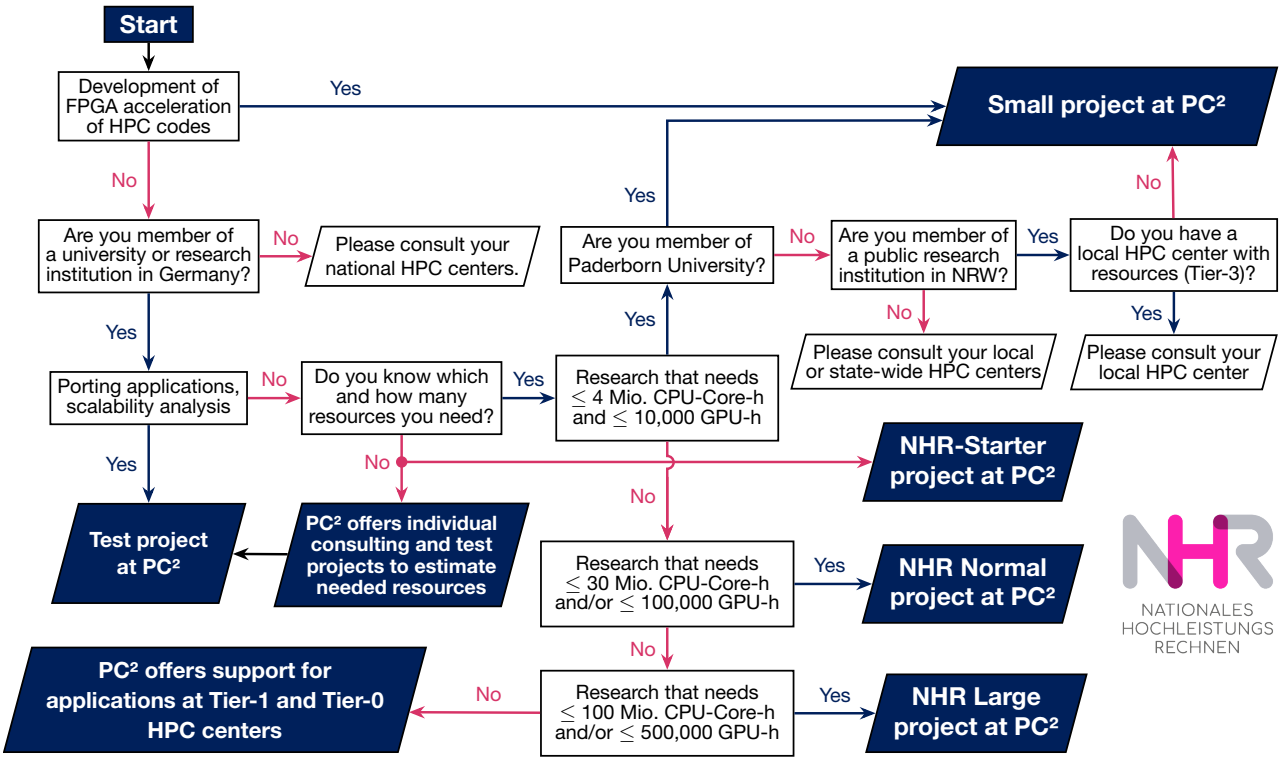
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Detailed information with an interactive guide for a project application is available at https://pc2.de/go/access. A simplified flow chart is shown below.



Glossary of Terms and Definitions

HPC High-performance computing.

Linux Operating system used on HPC cluster systems.

NHR **N**ationales **H**ochleistungs**r**echnen (National Centre for High Performance Computing). NHR focuses on the concerns of the scientists and scientific developments.

PA/PC The project administrator (PA) or person of contact (PC) is a member of a compute project and responsible for the technical aspects of the project. PI and PA/PC can be the same person.

PC² Paderborn Center for Parallel Computing, Paderborn University.

PI The principal investigator (PI) is responsible for all legal and scientific aspects of a project as well as project application and the project execution. They need to have a doctoral degree. They have to make sure that citizens of countries that are subject to the export control policy of the German Federal Government have an additional authorization from the German Federal Office for Economic Affairs and Export Control (BAFA) before they are allowed to use the compute resources of the project.

RAB Resource Allocation Board, committee that decides on the acceptance/refusal of project proposals and allocation of compute resources based on the rating of the scientific reviewers. The review process follows the recommendations of the Gauss-Alliance for High-Performance-Computing in Germany.

single-blind review A review process in which the reviewers know the identity of the authors of the proposal, but the applicants don't know the identities of the reviewers.