



# Quick Reference Card for University of Cologne - Regional Computing Centre

Guidelines for the Application, Approval and Allocation of HPC-Resources at University of Cologne - Regional Computing Centre

<https://rrzk.uni-koeln.de/>

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

 HPC.NRW



Access Conditions	Access to the university's <b>HPC</b> system can be granted to members of the university of Cologne, members of NRW public universities and/or universities of applied sciences, and to external researchers cooperating with the university of Cologne in the context of research projects.
Project Preparation	<ol style="list-style-type: none"><li>1. Estimate the needed resources. If need is unknown or unsure, request a <b>trial account</b> and/or contact <a href="mailto:hpc-mgr@uni-koeln.de">mailto:hpc-mgr@uni-koeln.de</a>.</li><li>2. Select a project category according to the table on the next page.</li><li>3. For <b>large projects</b>:<ul style="list-style-type: none"><li>• collect information on scaling of programs or perform scaling analysis,</li><li>• compose a detailed project description (<a href="https://rrzk.uni-koeln.de/en/hpc-projects/hpc/access-and-user-instructions">https://rrzk.uni-koeln.de/en/hpc-projects/hpc/access-and-user-instructions</a>).</li></ul></li></ol>
Proposal Submission	<ol style="list-style-type: none"><li>1. visit <a href="https://rrzk.uni-koeln.de/en/hpc-projects/hpc/access-and-user-instructions">https://rrzk.uni-koeln.de/en/hpc-projects/hpc/access-and-user-instructions</a>, fill out the <b>HPC</b> application form and add the project description.</li><li>2. <b>PA</b> and <b>PI</b> must sign the form, and the form must be sent to <b>RRZK</b>. e.g. <a href="mailto:hpc-accounts@uni-koeln.de">mailto:hpc-accounts@uni-koeln.de</a>, or University of Cologne, RRZK, Weyertal 121, D 50931 Cologne.</li></ol>
Formal Evaluation	<ul style="list-style-type: none"><li>• RRZK will check formal aspects of the submitted project application.</li><li>• If questions or problems remain, the PA and/or PI will be contacted.</li></ul>
Technical Review	Members of the HPC group check the project description for technical feasibility, e.g. availability of the requested HPC resources, storage, software, <b>core-hours</b> , memory, ) and will contact PA and PI, if problems and questions arise.
Scientific Review	<ul style="list-style-type: none"><li>• Not required for <b>trial accounts</b>.</li><li>• <b>Small projects</b> will be reviewed by HPC experts of RRZK.</li><li>• For <b>large projects</b>, a scientific <b>single-blind review</b> by external experts from the field of the projects scientific field will take place, with at least two reviews per proposal. This may take some weeks.</li></ul>
Resource Allocation and Monitoring	<ol style="list-style-type: none"><li>1. The <b>resource allocation board</b> for RRZKs HPC resources decides on the resource allocation for the submitted projects and informs PA and PI about the approval of the granted resources, or the refusal of the project application.</li><li>2. Users are able to check file system quotas, scheduling priorities and the used computing time.</li></ol>

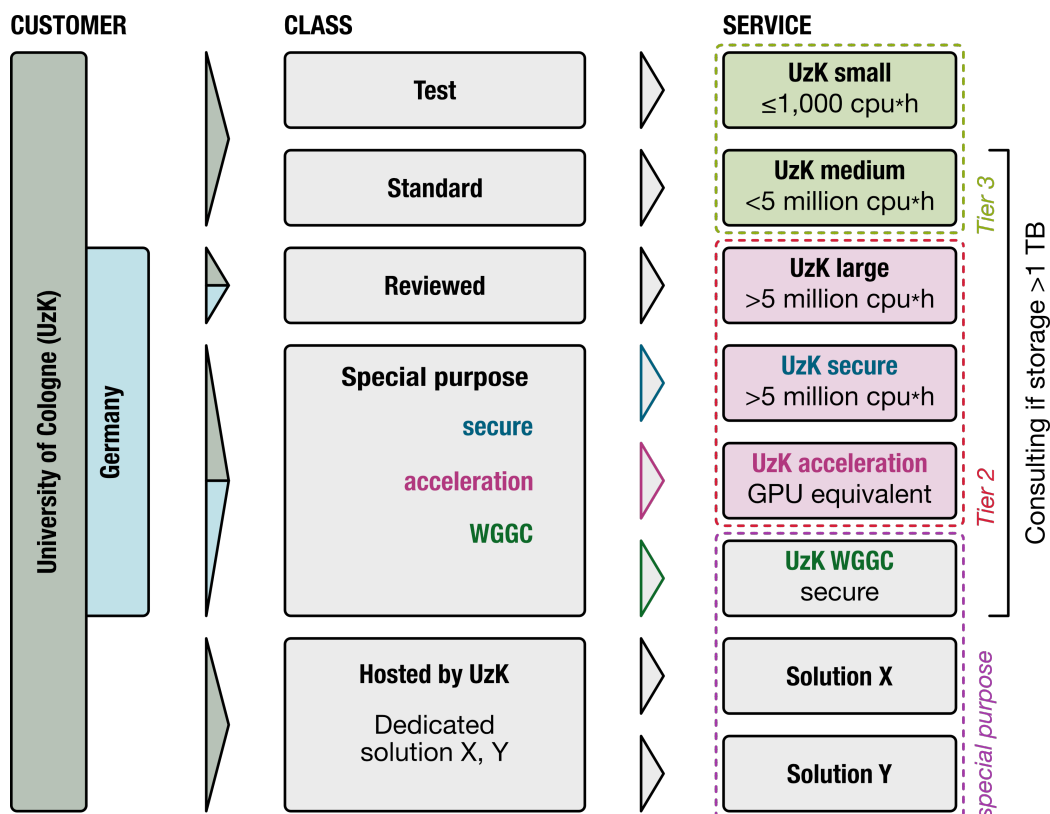


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## Glossary of Terms and Definitions

**HPC** High-performance computing.

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

**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. He/She has to be a professor or junior professor at a university. Exceptions to this rule are possible but have to be justified in the project proposal. He/She has 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.

**RRZK** Regional Computing Centre of the University of Cologne.

**core-h** A core-hour (Core-h) is a unit used for the accounting of compute cluster resources. One core-hour equals one CPU core being used for the duration of one hour of execution time. The latter is always measured as the elapsed wall clock time from the job start to the job finish and not as the actual CPU time. For exclusively scheduled jobs (i.e., jobs using the complete node), the used core-hours usage are always equal to the total number of CPU cores on the allocated nodes times the execution time, regardless of the actual number of node slots allocated to the job.

**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 author don't know the identities of the reviewers.

**trial account** account with limited core hours, not useful for production but only test runs.