Quick Reference Card for
University of Münster

Guidelines for the Application, Approval and
Allocation of HPC-Resources at University of Münster
`https://www.uni-muenster.de/IT/hpc`
document created by `https://hpc.dh.nrw`

HPC.NRW
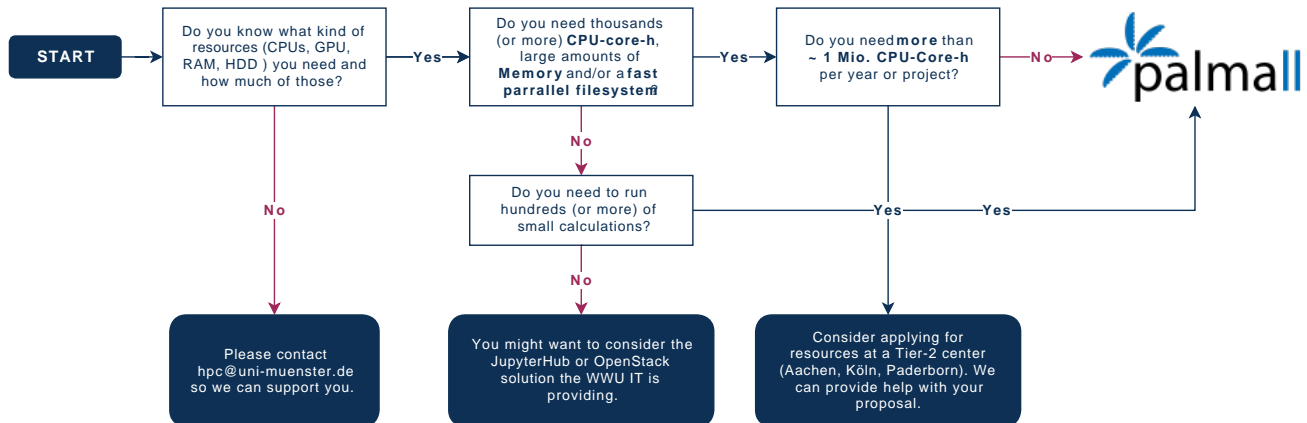
WWU MÜNSTER IT

Project Preparation	Access to HPC resources is granted on a research-group basis (and not project-based). This means if you are a member of a registered research group you can directly access PALMA without any application by following the steps below. If your research group is not yet registered, the head of your group has to fill out an application form (see Proposal Submission) to be granted access. This has to be done only once per group. • Register your university's user account for the group **u0clstr** AND change your user account's <u>main</u> group to your work/research group at the IT Portal: https://itportal.uni-muenster.de/. • Register at our HPC mailing list: https://listserv.uni-muenster.de/mailman/listinfo/hpc-l. Further information and help can be found at the WWU HPC confluence space https://confluence.uni-muenster.de/display/HPC.
Proposal Submission	Only the group leader of a research group is eligible to register her/his group at the HPC facilities. The following questions should be answered with some detail in your application: • Describe your scientific research and explain why you need to use a *high performance computing* infrastructure for your specific workgroup. • What hardware components are you planning to use? (Specify the amount of needed Core-h/year, GPU's, memory and storage) • What software are you planning to run on the cluster? • Which compute systems do you have access to at the moment? • What kind of funding do you receive? A template for the application can be found at the WWU HPC confluence: https://confluence.uni-muenster.de/display/HPC. This has to be done only once to register your research group for the usage of HPC resources. Send the filled out and signed application to hpc@uni-muenster.de
Formal Evaluation	The HPC support team will check formal aspects of your application. If questions or problems arise, you will be contacted.
Technical Review	The HPC support team will check technical aspects (required resources, software etc.) of your application.
Scientific Review	This phase does not apply for this HPC.NRW compute center.
Resource Allocation and Monitoring	**Fair-share allocation:** Jobs are assigned a priority depending only on the recently used compute resources (Core-h). Next to the default *normal* queue, there are group exclusive queues. The hardware resources these queues provide are solely funded by the research groups themselves and are therefore not publicly accessible.

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START

Do you know what kind of resources (CPUs, GPU, RAM, HDD) you need and how much of those? — **Yes** →

Do you need thousands (or more) **CPU-core-h**, large amounts of **Memory** and/or a **fast parrallel filesystem**? — **Yes** →

Do you need **more** than ~ **1 Mio. CPU-Core-h** per year or project? — **No** → palma II

No ↓ (from first box)

Please contact hpc@uni-muenster.de so we can support you.

No ↓ (from second box)

Do you need to run hundreds (or more) of small calculations?

No ↓

You might want to consider the JupyterHub or OpenStack solution the WWU IT is providing.

(from third box) — **Yes** →
(small calculations box) — **Yes** → palma II

Consider applying for resources at a Tier-2 center (Aachen, Köln, Paderborn). We can provide help with your proposal.

Glossary of Terms and Definitions

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.