

Scheduling

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Introduction

Job scheduling is done by Slurm Workload Manager.

Fairshare

Slurm Fairshare Policy is a feature of the Slurm Workload Manager that allows for the fair distribution of computing resources among different users or groups based on their fairshare score. The fairshare score is calculated based on factors such as past resource usage, job priorities, and user/group weights.

By using the Fairshare Policy, Slurm ensures that all users and groups have a fair opportunity to access computing resources based on their fairshare score, promoting equitable resource allocation and maximizing overall system efficiency.

Difference between „user“ and „account“

When you are granted access, your user is linked to a Slurm account. This account is not private, but shared by all members of the department/group/team. Therefore, any actions taken on the cluster will also affect your team members. Please keep this in mind.

Your user will always be you and used for permissions on system level, e.g. read/write permissions on /scratch.

Fairshare is distributed by faculty and account

It is important to know that each department's account is associated with a parent account representing a the faculty. The fairshare fraction assigned to the faculty's account determines its share of the cluster's resources relative to other faculties. This allocation impacts your department's access to computing resources and job scheduling priorities, with faculties receiving different fairshare fractions influencing resource availability and allocation within the cluster.

Understanding this hierarchy helps users optimize resource utilization and job submissions based on their department's affiliation and the fairshare distribution across faculties.

Further Links

Documentation on SLURM in **Wiki of IT Chemie**:

- http://it.chem.tu-berlin.de/wiki/doku.php?id=hpc:hpc_tubit:start

From:

<https://hpc.tu-berlin.de/> - **HPC-Cluster-Dokumentation**

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<https://hpc.tu-berlin.de/doku.php?id=hpc:scheduling:start&rev=1718295309>

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