

### File Systems

Path	Shell variable	Purpose	Quota	Speed
/home	\$HOME	Software, Scripts	1TB per user	slow
/scratch_shared	\$HPC_SCRATCH	persistent job data	fair use	medium
/scratch	\$HPC_LOCAL	temporary job data	1.7-3.4 TB, deletion after job end	fast
/masc_shared	N/A	long-term storage	pre-booked	very slow

### Default

Parameter	Default value
--partition	normal
--time	3-00:00:00 (three days)
--output	slurm-<jobID>.out
--mem-per-cpu	1000MB

### Access

```
$ ssh -p 223 -XC <username>@marc3a.hrz.uni-marburg.de
```

Only from university network or Staff-VPN, see <https://uni-marburg.de/f6nFr>

### Partitions

Partition name	Limits	Restrictions
short	--time=01:00:00	N/A
normal	--time=3-00:00:00	N/A
long	--time=10-00:00:00	only 64 cores at a time
interactive	--time=12:00:00, --ntasks=16, --gpus=1	only one concurrent job per user
owner_<name>	--time=10-00:00:00	only specified group(s), only owned hardware

### Module System

**Hint:** Load *all* required modules inside your job scripts! `module purge` should be your first command!


Common commands:

- `module spider <pattern>`: Search modules with name matching `<pattern>`
- `module [un]load <name of module>`: Load / unload a particular module
- `module purge`: Unload all modules (use in job script as first module command)
- `module list`: List all currently loaded modules
- `module avail`: List all currently loadable modules

### Help

**Online documentation:** <https://uni-marburg.de/bBWWs>

**Support contact:** [marc3@hrz.uni-marburg.de](mailto:marc3@hrz.uni-marburg.de)



### SLURM commands

For details refer to the man pages or the Slurm website: <https://slurm.schedmd.com>

Most important commands:

- `sbatch`, `scancel`, `squeue`, `srun`

**sbatch examples**

- Submit a jobscript:
 

```
$ sbatch <job script>
```
- Submit a jobscript as a specific account (other than default):
 

```
$ sbatch --account <account> <job script>
```
- Submit a jobscript that only starts after the other given jobs have finished successfully:
 

```
$ sbatch --dependency=afterok:<jobid>[:<jobid>[:...]] <job script>
```

**scancel examples**

```
$ scancel <jobid>
```

- Note:** `skill` is *not* a slurm command!

**srun examples**

- Note:** `srun` is used *either* inside a job script (to start subtasks) or to start an interactive job (should only be done sparingly / for testing!).
 

```
srun [-N <number of tasks>] /path/to/application
```

**squeue examples**

- Show all running and pending jobs
 

```
$ squeue
```
- Show running and pending jobs of a user (for yourself, you can also use `squeue -u $USER`)
 

```
$ squeue -u <username>
```
- Show a time *estimate* when this job will be starting (can change over time!)
 

```
$ squeue --start -j <jobid>
```