

### **Machine documentation:**

login, submission of jobs, job script, copy and transfer files, etc.

<https://www.bsc.es/user-support/mn4.php>

<https://www.bsc.es/user-support/power.php>

### **Submission queues:**

Use queues for execution.

bsc\_queues (command)

#MN4:

```
nct00008@login1:~> bsc_queues
```

QUEUE NAME	MAX TIME	MAX PROC
debug	02:00:00	768
interactive	02:00:00	4
training	2-00:00:00	768

The maximum number of jobs per user in any queue is 366.

#P9:

```
[nct00008@p9login1 ~]$ bsc_queues
```

QUEUE NAME	MAX TIME	MAX PROC
debug	02:00:00	640
training	1-00:00:00	1280
interactive	02:00:00	16

The maximum number of jobs per user in any queue is 366.

### **Software available:**

Use module avail to know which you have, por instance:

```
module avail gcc
```

```
module avail intel
```

```
module avail openmpi
```

```
module avail cuda
```

```
module load cuda/10.2
```

**Specific software AI related:**

two software stacks:

1) module purge && module load gcc/6.4.0 cuda/9.1 openmpi/3.0.0 atlas/3.10.3  
scalapack/2.0.2 fftw/3.3.7 szip/2.1.1 ffmpeg/4.0.2 opencv/3.4.1 cudnn/7.1.3  
python/3.6.5\_ML

2) module purge && module load gcc/8.3.0 cuda/10.2 cudnn/7.6.4 nccl/2.4.8  
tensorrt/6.0.1 openmpi/4.0.1 atlas/3.10.3 scalapack/2.0.2 fftw/3.3.8 szip/2.1.1  
ffmpeg/4.2.1 opencv/4.1.1 python/3.7.4\_ML

> pip3 show keras

Name: Keras  
Version: 2.4.0  
Summary: Deep Learning for humans  
Home-page: <https://github.com/keras-team/keras>  
Author: Francois Chollet  
Author-email: [francois.chollet@gmail.com](mailto:francois.chollet@gmail.com)  
License: MIT  
Location: /gpfs/apps/POWER9/PYTHON/3.7.4\_ML/lib/python3.7/site-packages  
Requires: pyyaml, h5py, numpy, scipy, tensorflow-gpu  
Required-by: segeval

**You have storage space at:**

/gpfs/projects/nct0[0-1]/<username>

/gpfs/scratch/nct0[0-1]/<username>

**Any machine problem:**

[support@bsc.es](mailto:support@bsc.es) with cc [djimenez@ac.upc.edu](mailto:djimenez@ac.upc.edu)