

# 1 Logging In

Access to the supercomputers is granted via SSH.

## 1.1 Accounts

For JURON and JURECA, please use either the temporary `train0XX` accounts given to you or your permanent accounts.

### 1.1.1 Procedure for `train0XX` Accounts

In order to receive login details associated to a temporary `train0XX` account, the following procedure needs to be performed:

1. Fill out usage agreements for JURECA and/or JURON
2. Swap signed agreements against passwords for user ID and password for SSH key
3. Download private part of SSH key from given URL
4. *Running Windows and PuTTY? Convert your SSH key with PuTTYgen! [Small external tutorial.](#)*

You might be prompted to change permission of the just-downloaded SSH key. Call `chmod 600 id_train0XX` then.

### 1.1.2 Already Existing Accounts

You are perfectly fine to use your already existing account on JURON and/or JURECA. Please make sure the JURECA account is known to the organizers, since the reservation on the batch system is associated to it.

## 1.2 Using SSH

Please connect to the two systems with SSH. Using a `train0XX` account, it looks like this:

- `ssh -i id_train0XX train0XX@juron.fz-juelich.de`
- `ssh -i id_train0XX train0XX@jureca.fz-juelich.de`

To forward the X server, use `-X` or `-Y` as an additional flag. In case of launching a GUI application on the compute backends it might be necessary to forward your SSH authentication agent (`-o ForwardAgent=yes`).

If you are new to SSH, you might want to have a look at some tutorials ([example](#)).

Use `ssh-add id_train0XX` to stop entering the passphrase of the given key.

### 1.2.1 Creating Alias

It's handy to create an alias for your connection to JURECA or JURON, especially if you are using the custom private SSH key of the `train0XX` accounts.

Add the following to your `~/.ssh/config` (create the file if it does not exist):

```
Host jureca
  HostName jureca.fz-juelich.de
  User train055
  IdentityFile ~/Downloads/id_train055
  ForwardAgent Yes
```

(Adapt lines 3 and 4 to match your configuration.)

You can then use the alias `jureca` now in any statement with `ssh`, `scp`, or `rsync`, like `* ssh jureca ls . *`  
`scp jureca:~/results.csv ~/Downloads/ * rsync --archive --verbose jureca:~/hackathon/`  
`~/hackathon`