# Available Software

**The Module environment**

The lilac  and juno clusters make use of a module environment for managing software packages where it is important to provide users with several different versions. The module environment makes it easy to configure your software versions quickly and conveniently.

To see the various options available, type

```
module avail
```

To list currently loaded modules and versions:

```
module list

Currently Loaded Modulefiles:
1) gcc/4.8.1
2) mpich2_eth/1.5
3) cuda/5.5
4) cmake/2.8.10.2
```

To list all available modules that can be loaded:

```
module avail
```

To add a new module, use module add:

```
module add cuda/5.5
```

The number that comes after the module name followed by a slash is the version number of the software. More information about available modules can be obtained with themodule show command:

```
module show cuda/5.5

———————————————————-
/etc/modulefiles/cuda/5.5:
module-whatis   cuda
module-whatis   Version: 5.5
beta module-whatis   Description: cuda toolkit
prepend-path     PATH /usr/local/cuda-5.5/bin
prepend-path     LD_LIBRARY_PATH /usr/local/cuda-5.5/lib:/opt/cuda-5.5/lib64
———————————————————-
```

**Available additional shared software**

The lilac and juno clusters have additional shared software in the /opt/common directory.

In an effort to keep track of frequently changing software versions, we are now using this path structure:

```
/opt/common/CentOS_version/package/version/
```

For example the latest bwa is at:

```
/opt/common/CentOS_7/bwa/bwa-0.7.12/bwa
```

R-3.2.0 is at:

```
/opt/common/CentOS_7/R/R-3.2.0/bin/R
```

You can set these paths in your .bashrc or use the full path in your code. If you put paths in your .bashrc make sure that you source it or somehow add the path to your grid engine scripts.

## Requesting installation of additional software

If you need additional software, check with us to see if we already have it installed. We can install packages for you globally or help you with your own install. To request help installing the software, please use this form here: http://hpc.mskcc.org/software-installation-request/