

**University of Minnesota
Center for Magnetic Resonance Research
Standard Operating Procedure**

C123-03 - Parallel Processing with SGE

SGE = Sun Grid Engine

The Sun Grid Engine allows users to submit batch jobs to the servers.

Any command line script can be submitted.

Jobs are generally submitted to a SGE queue

A SGE queue can contain a number of slots on several different servers.

SGE checks for submitted jobs and starts the next one on a machine that is not too busy.

SGE is recommended for large or repetitive processing.

Initialize your account to use SGE

Add this to your .cshrc

```
if ( -f /opt/local/bin/setup.sge.csh && -d /opt/sge ) then
  source /opt/local/bin/setup.sge.csh
end
```

Submit your jobs to a SGE queue

Choose the queue that best matches your job's needs. Here are some general queues to use.

Ask your sponsor or help@cmrr.umn.edu if you don't know which queue to use.

atlas.q - submit to run on atlas1,2,3,4

atlas678.q - submit to run on atlas6,7,8

long.q, short.q, verylong.q, veryshort.q - fsl default queues

For example:

```
echo "./myscript.sh" | qsub -cwd -q atlas.q
```

Check your jobs

```
qstat
```

```
qstat -f
```

Delete your old/aborted jobs

```
qdel 999
```

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