Parallel computing
ECDF/Condor

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Current possibilities

• ANC Servers
  – Small and busy

• Condor
  – Unreliable
  – Inhomogeneous
  – Big

• Informatics cluster
  – Restricted access and not so big

• ECDF
  – Recently busy but huge
  – Very responsive support
How I use it

• I have large simulations that eat loads of memory (>1G) and run for long times (>10hours)
• I want to run the same simulation many times with different parameters
Using ECDF

• After you register you get your own home directory
  – Small tip: register with the DICE username
  – 1GB quota
  – If not enough move to
    /exports/work/informatics

• Submission hello world example:
  – qsub –l h_rt=H:M:S helloworld.sh
How I handle multiple jobs and parametrization (I)

```bash
#!/bin/bash
for ((i=0;i<=$1;i++)); do
  qsub -pe "memory" 2 -l s_rt=20:0:0 -R y ./topo/mycommands/newcomplexcordonjob4.sh $i
done
```
How I handle multiple jobs and parametrization (II)

```
#!/bin/bash -i
#$ -S /bin/bash
#$ -cwd
arguments="Parameters=1,Parameter=2"
  "Parameters=1.1,Parameter=2.2"
  "Parameters=1.3,Parameter=2.3"

args='other constant arguments'
a="$args ${arguments[$1]}"
echo "${a}"
(exports/work/informatics/s0570140/topographica/topographica -c "${a}"
```
Some other tips

• Not enough memory?
  - `qsub -pe "memory" 2 -l s_rt=20:0:0 -R y helloworld.sh`

• Delete all running jobs
  - `qdel -u username`