

# 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)

```
#!/bin/bash
```

```
for ((i=0;i<=$1;i+=1)); do  
    qsub -pe "memory" 2 -l s_rt=20:0:0 -R y ./topo/mycommands/newcomplexcordorjob4.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`