

0.1 How to build and install the code

- Log into SCC
- cd to `/projectnb/qfe/$USERNAME`
- create a directory for the project – in this case, I'm using `twopointQFE`
- create three directories in that folder: `code`, `jobs` and `data`
- cd into the code directory: `cd twopointQFE/code/`
- in that directory, create a directory called `build` and one called `install`
- clone the repo to your directory:

```
git clone https://github.com/agasbarro/ising_graph.git
```
- cd into `ising_graph`
- run `autoreconf` to prepare the appropriate configuration scripts
*note: I'm getting an error here, which is easy to fix:

```
error: required file 'config/missing' not found  
'automake --add-missing' can install 'missing'  
autoreconf: automake failed with exit status: 1
```


The fix is just to do exactly what the error message recommends:

```
automake --add-missing
```

 and then do `autoreconf` again
- cd into your build directory
- Set the path to the install files:

```
/path/to/ising_graph/configure --prefix=/complete/path/to/ising_install
```


So for me, this means I run:

```
../ising_graph/configure --prefix=/projectnb/qfe/caseyb/twopointQFE/code/install
```
- run `make all`
- run `make install`
- Now you have an executable in `install/bin/`

0.2 How to submit a job

- I copied the bash scripts from Andy:

```
cp /projectnb/qfe/gasbarro/3Drphi2/jobs/01_s2/*.sh  
/projectnb/qfe/caseyb/twopointQFE/jobs
```

- First, go into the `submit_ising_bundle.sh` file and change the paths so they match your directory structure

- To change parameters, edit the file `submit_ising_bundle.sh`

note: it's easier to see what all these parameters are by examining the `run_ising.sh` file, but `submit_ising_bundle.sh` is where you make the changes.

- `twarm` is the the number of thermalization steps. In `run_ising.sh`, the number of measurement iterations is specified to be $4 \times \text{twarm}$, so that's the number you'll want to change to increase statistics
- `s` is the number of lattice sites

- submit by running the `submit_ising_bundle.sh` script: `./submit_ising_bundle.sh`
- check the status of your jobs with `qstat -u $USERNAME`