

# Unix & connecting to a supercomputer

# Connect to ocean

- Open cocalc
- Go to your folder in StudentFolders
- Open your .term file
- `ssh ws2021@ocean.fullerton.edu`
- Passphrase: see zoom chat

# UNIX command line crash course activity

- **Commands to know**

- ls, pwd, cd, mkdir
- ./, ../, paths
- cp, mv, rm, rmdir
- cat, less
- nano
- whoami, date, ...

- **Play along with me...**

- mkdir YOURNAME and cd into it
- Navigate file system: ls, pwd, cd, ./ and ../
- Use nano to write a text file
- Copy, rename, remove a file
- Cat, less, more, head, tail
- > to redirect output
- Grab bag: whoami, date, grep, sed, zip...

# Start your own simulation of merging black holes

- Start from rest, collide head-on
- Choose mass ratio between 1 and 1.2
- Choose spin = 0,0,0 on the smaller black hole (B)
- Choose spin = 0,0,X on the larger black hole (A), where X is between 0 and 0.2
- Set  $\Omega_0 = 0$ ,  $\dot{a}_0=0$ ,  $D_0=35$

```
cd $HOME
```

```
cd StudentFolders
```

```
cd YOURNAME # replace YOURNAME with the name of your folder
```

```
mkdir BlackHoleMerger
```

```
cd BlackHoleMerger
```

```
source $HOME/spec/MakefileRules/this_machine.env
```

```
PrepareID -t bbh2 -no-reduce-ecc
```

```
nano Params.input
```

```
# Omega0 = 0.0
```

```
# adot0 = 0.0
```

```
# D0 = 35.0
```

```
# MassRatio = 1.2 #or 1.0, or something in between
```

```
# @SpinA = (0.0, 0.0, 0.0) #can make 1 component up to 0.2 instead  
of 0.1
```

```
# @SpinB = (0.0, 0.0, 0.0)
```

```
nano Ev/DoMultipleRuns.input
```

```
# MaxLev = 1
```

```
./StartJob.sh
```

# Clicker question #1.8

- I want to list the files in the directory I'm in. Which command would I use?

A

ls

C

pwd

B

cd

D

nano

# Clicker question #1.9

- Which command edits the file “Hello.txt” in the directory I am currently in?

A

nano ./Hello.txt

B

cat ./Hello.txt

C

nano ../Hello.txt

D

cat ../Hello.txt

# Clicker question #1.9

- Which command makes a new directory called “TestFolder”?

A

ls TestFolder

B

cd TestFolder

C

mkdir TestFolder

D

cp TestFolder



# Clicker question #1.9

- Which command removes everything in the current directory, which is not empty?

A

`rmdir ./`

B

`rm -r ./*`

C

`rm -r ./*`

D

More than one of these will work

```
qstat
```

```
qstat -f YOURJOBNUMBER
```

```
ShowQueue
```