**HPC Installation and Commands**

Wed page: <https://www.imperial.ac.uk/admin-services/ict/self-service/research-support/rcs/computing/high-throughput-computing/>

1) Get access to the hpc system (probably mail a existing member)

2) Ask for access to fluidity\_dev module from Tim (mail [tim.greaves@imperial.ac.uk](mailto:tim.greaves@imperial.ac.uk))

3) ssh enter your hpc account with the command: ssh username@login.hpc.ic.ac.uk

(if enter for first tine then press yes on the popping message)

4) Logging in will automatically create an ssh key. Then enter the ssh hidden folder and copy the key

cd .ssh

ls

vi id\_rsa.pub

Copy the key and paste under <https://github.com/settings/keys>

vi authorized\_keys

5) Then load some modules and get ic-ferst from github

module purge

module load ese-software

module load ese-fluidity-dev

module load gmsh

git clone [git@github.com:ImperialCollegeLondon/multifluids\_icferst.git](mailto:git@github.com:ImperialCollegeLondon/multifluids_icferst.git)

cd multifluids\_icferst

git apply /rds/general/project/software-ese/live/scripts/use-local-netcdf.patch

autoconf

./configure --enable-2d-adaptivity

make clean && make  mp && make all && make fltools

Run a test case :

ls

cd legacy\_reservoir\_prototype/tests/Collapsing\_Water\_Column

ls

make (that makes the mesh from the geo file)

../../../bin/ (go back to bin to find icferts)

../../../bin/icferst cwc.mpml

Copy the outputs from HPC to Local machine

Make a directory and copy/paste the results

mkdir cwc

scp [username@login.hpc.ic.ac.uk](mailto:username@login.hpc.ic.ac.uk): …. all the \*.vtu