Introduction to HPC for Astronomers

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ADACS
ASTRONOMY DATA AND COMPUTING SERVICES

Day 1

Engineering Room 102, Swinburne University

9:15 – 10:15	Programming Paradigms
10:15 – 10:30	Coffee break
10:30 – 11:30	Computing Architectures
11:30 – 12:00	Getting Access to Supercomputing Resource
12:00 – 13:00	Lunch
13:00 – 14:30	Introduction to OpenMP
14:30 – 14:45	Coffee break
14:45 – 16:00	OpenMP continued

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Day 2

Engineering Room 102, Swinburne University

9:15 – 10:15	Introduction to MPI
10:15 – 10:30	Coffee break
10:30 – 12:00	MPI continued
12:00 – 13:00	Lunch
13:00 – 14:30	MPI continued
14:30 – 14:45	Coffee break
14:45 – 16:00	MPI continued

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Day 3

Engineering Room 615, Swinburne University

9:15 – 10:00	Parallel Filesystems / Lustre
10:00 - 10:20	Introduction to HDF5
10:20 – 10:35	Coffee break
10:35 – 11:00	HDF5 continued
11:00 – 11:45	Parallel I/O with MPI
11:45 – 12:00	Q+A / Wrap-up

Drop-in Clinic runs 1 – 4pm

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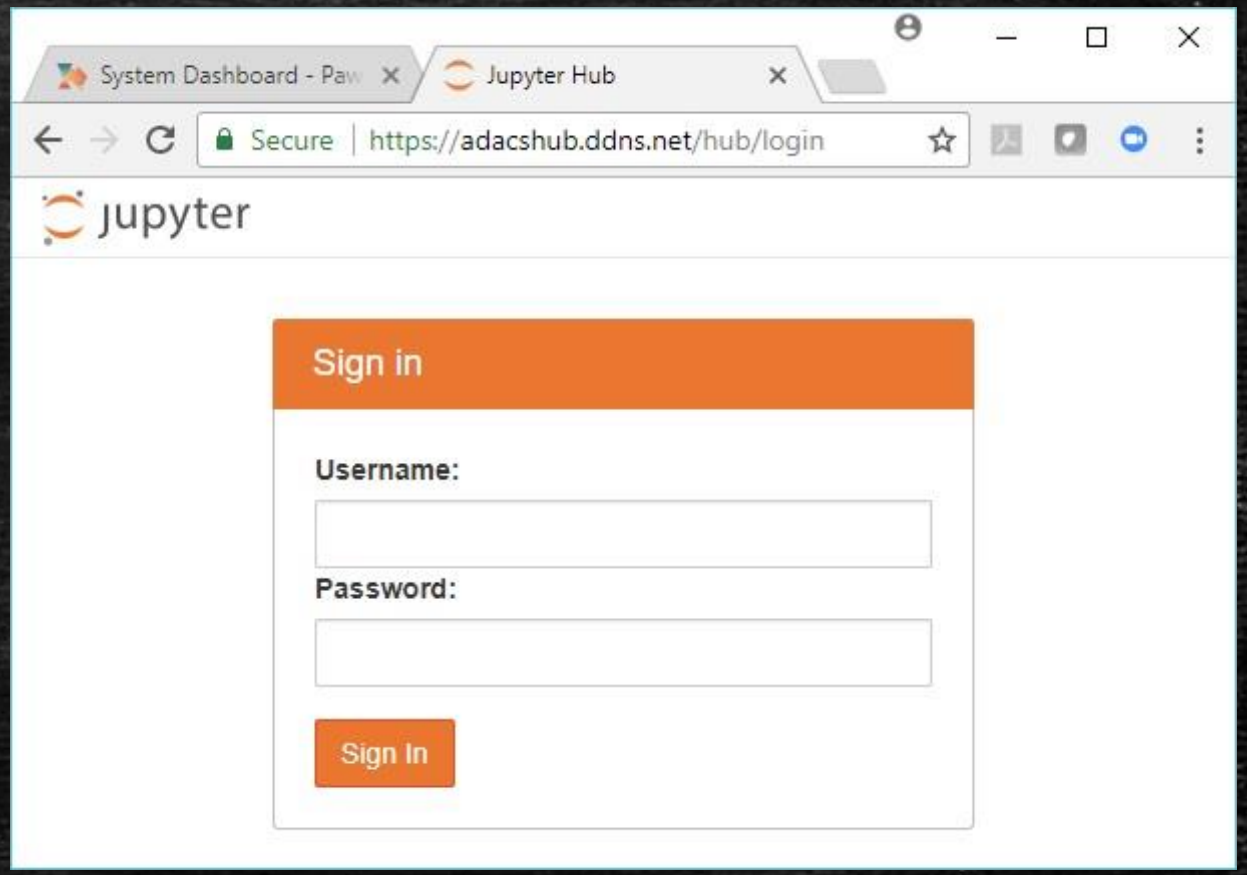
Accessing JupyterLab

- In a web browser go to: https://adacshub.ddns.net
- When asked to sign in, use the following username/password combination
  - Username: **training01**
  - Password: **P@ssw0rd**

    (use zero instead of o in word)



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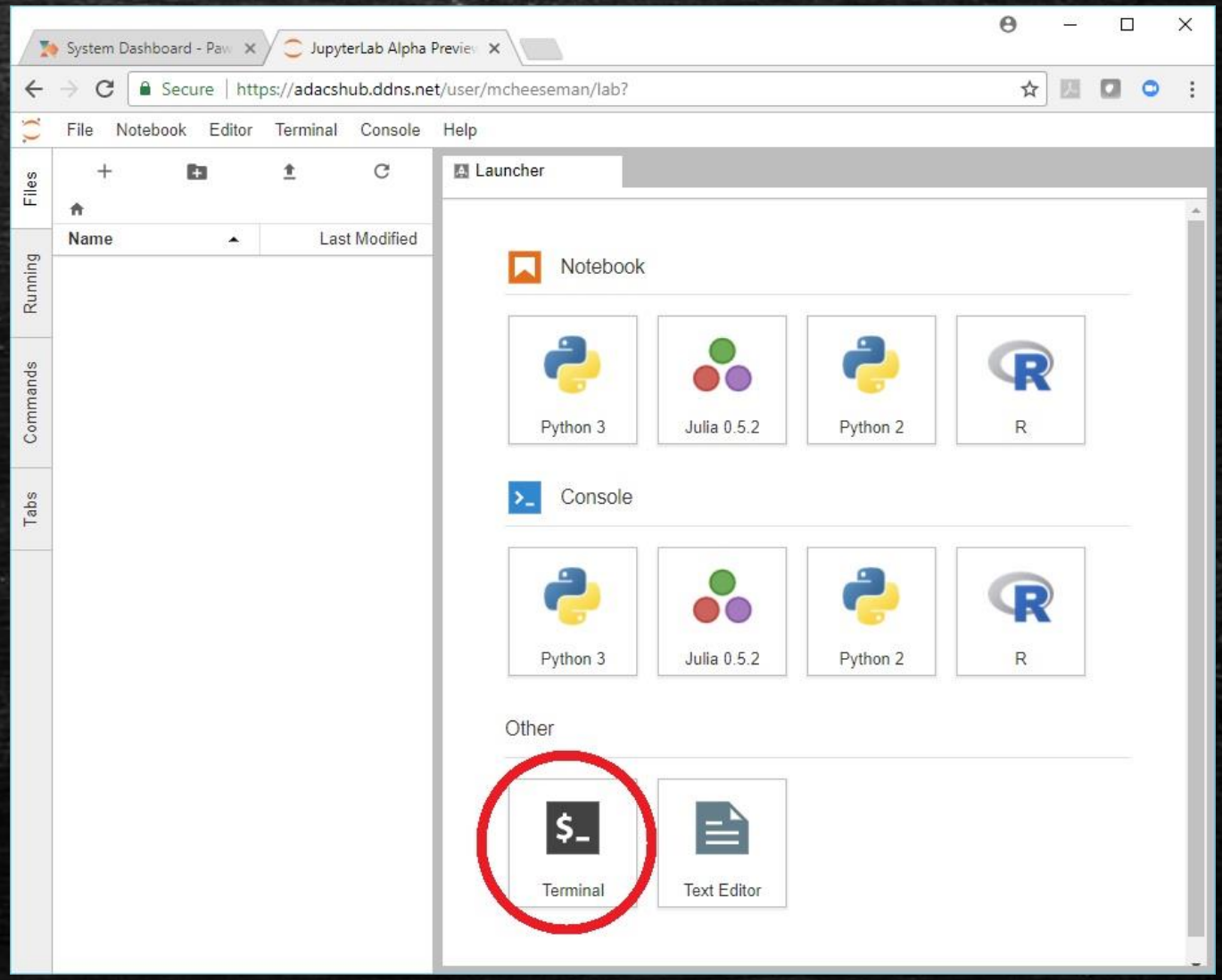
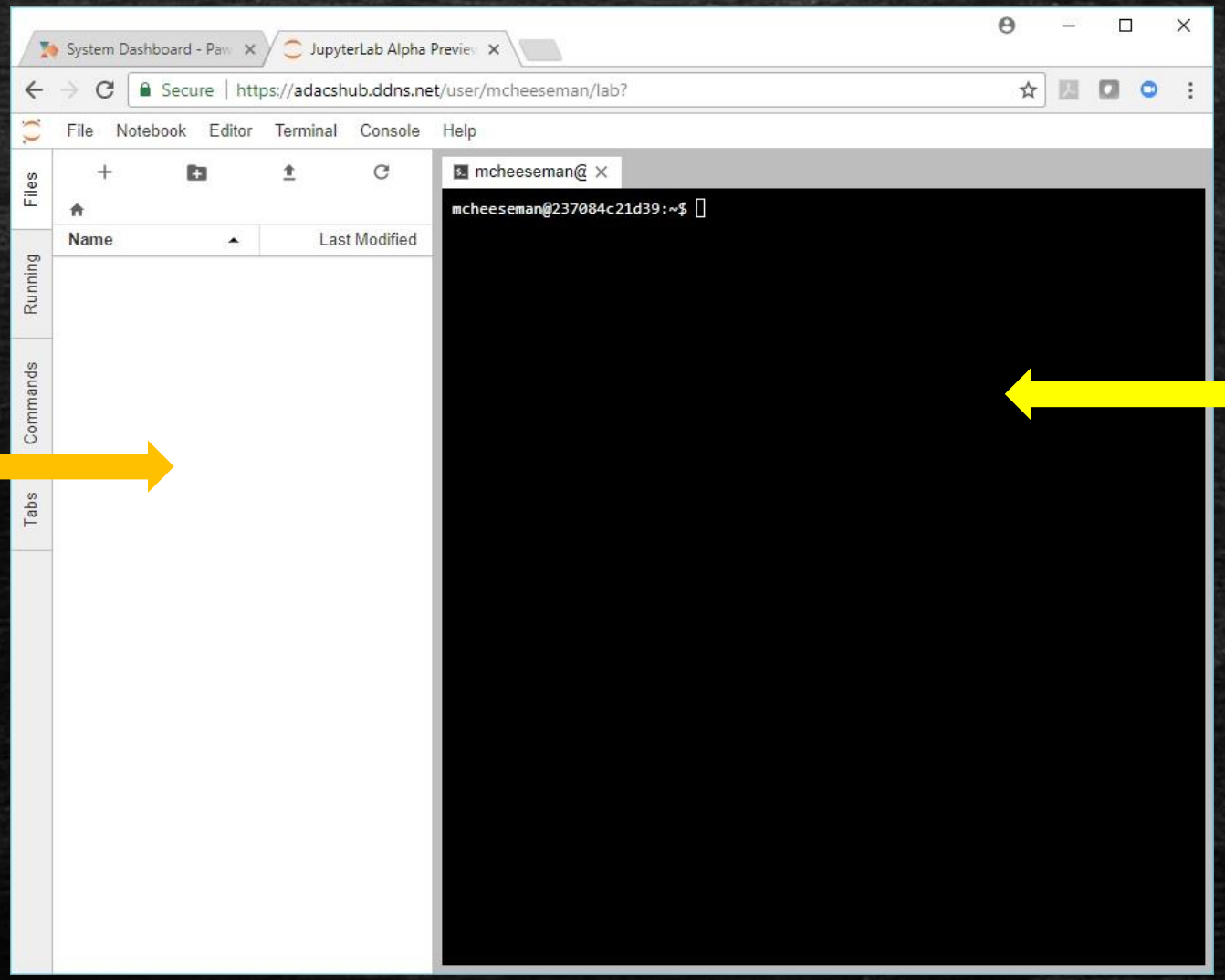
Accessing JupyterLab

- In the Launcher tab:
  - Click the *Terminal* button



JupyterLab



File explorer

Terminal

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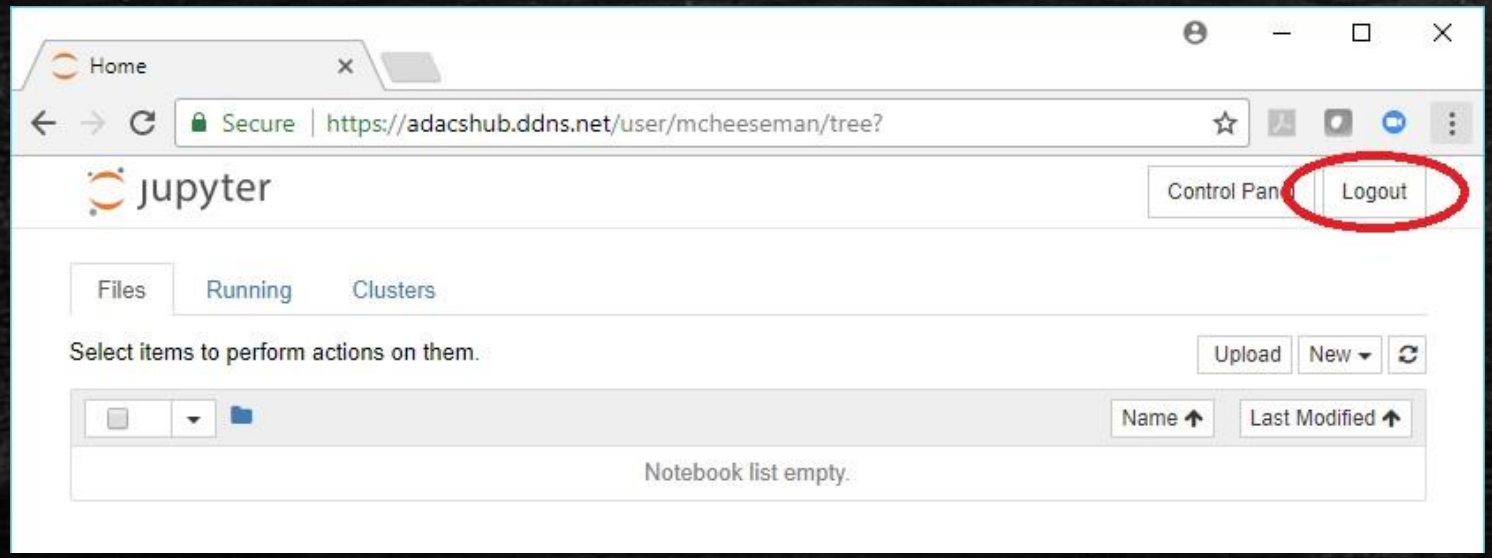
Logging out of JupyterLab

- Find the web URL line at the top of your web browser. Eg https://adacshub.ddns.net/user/training01/lab?
- Replace "lab" with "tree" in the URL. Eg. the URL should be https://adacshub.ddns.net/user/training01/tree?
- Click on the Logout button on the top right corner of the webpage



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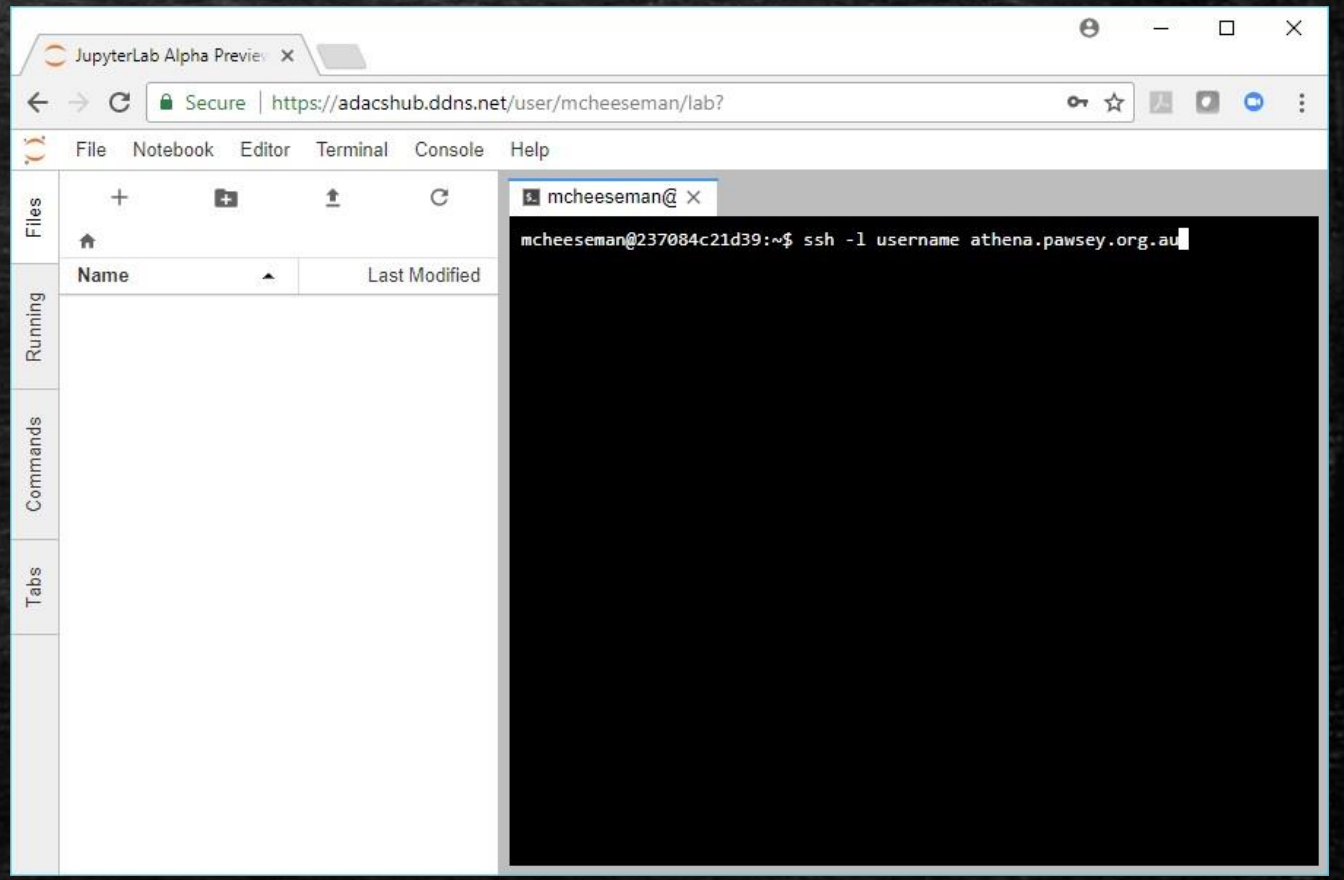
Accessing Athena Cluster

- Log into JupyterLab
- Click anywhere on the terminal window
- Type the following command

  ssh –l <username> athena.pawsey.org.au

- Get your Athena username and associated password from Mohsin or Mark
  - Different from the ones you use to access JupyterLab!



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