



# Intro to STORM

- What it is?
- Why use it?
- Safe usage
- How to use it
- The STORM police
- Useful resources



# What is STORM

- Shared Unix-based operating system consisting of multiple cores, accessible from the shell.
- STORM2 is made up of four nodes; Blackett, Bayes, Bellman and Dantzig. Each have 112 cores and 500GB of memory (RAM).

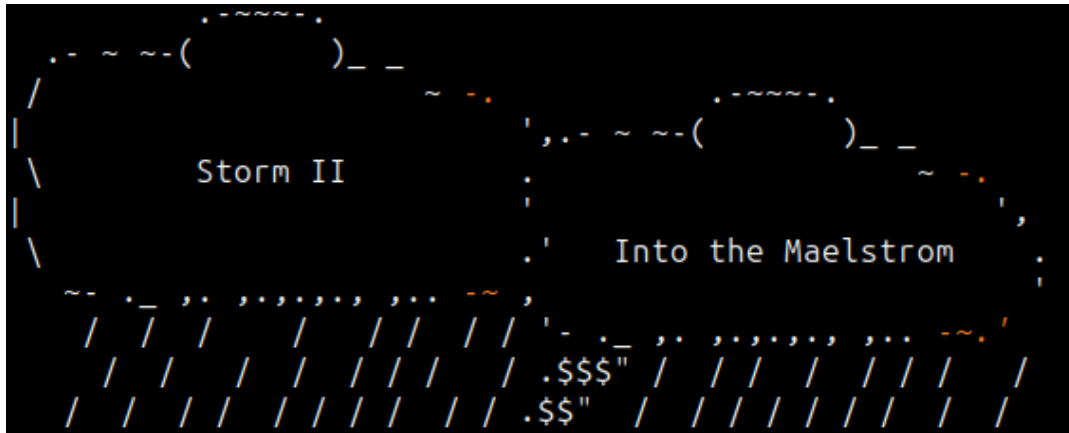


# Why use it?

- Are you running multiple jobs?
- Could you parallelise an individual jobs?



# Safe usage



 **maelstrom**  
/meɪlstrəm/

noun

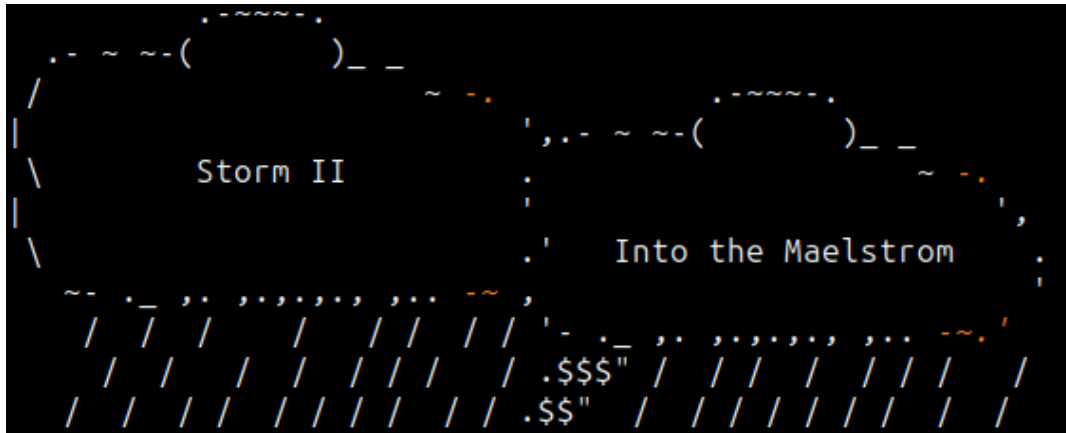
a powerful whirlpool in the sea or a river.

Similar: [whirlpool](#) [vortex](#) [eddy](#) [swirl](#) [Charybdis](#)

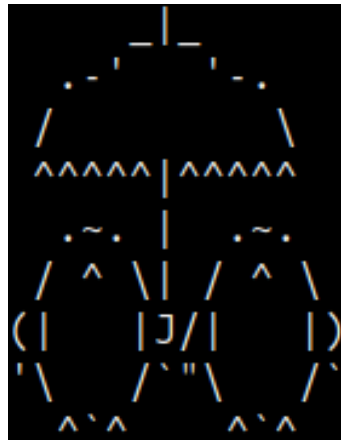
- a situation or state of confused movement or violent turmoil.  
"the train station was a maelstrom of crowds"



# Safe usage



- Don't worry – you cannot break anything
- Tips for safe/responsible usage:
  - Don't keep anything on there that isn't backed up elsewhere
  - Follow guidance on use of memory



# How to use it?

- First: setup account by asking Dan/Cyrus



# How to use it?

Basically:

1. Get what you need onto your area in STORM (scp, rysnc, git, VS)
2. Run a 'slurm' script to add your job to the queue
3. Remove your results from STORM





# How to use it?

- Let's try:

## Login:

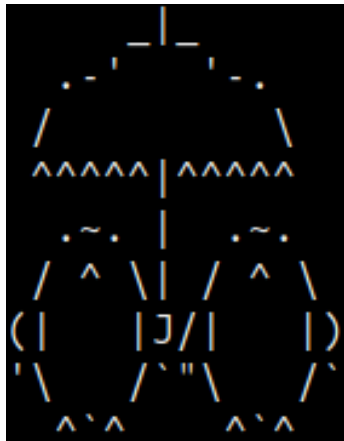
ssh <username>@storm2-fe.lancs.ac.uk

## Install pyenv:

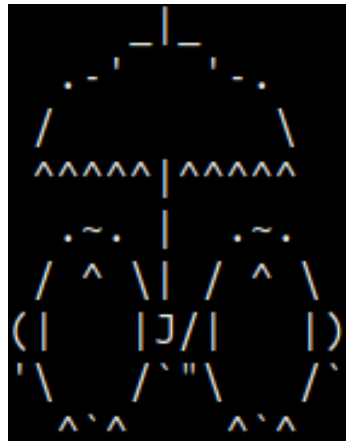
<https://github.com/grosed/storm2/blob/main/notebooks/brief-intro-to-storm2.ipynb>

## Clone this repo:

git clone https://github.com/grahamburgess3/hello-storm

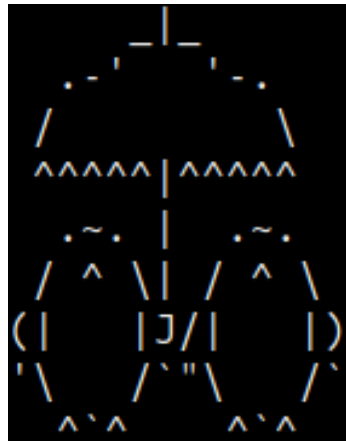


Intermission:  
Alternative connection via VS Code...



# STORM police

- Each person has a limit of **90 cores** and **500GB** of memory. If a node is down, this is reduced to 60 cores per person.
- There is a total storage limit of 3TB on the machine. **Please do not store files on STORM** as this impacts everyone's ability to use the cluster. Once a job is done, particularly if you are using or generating large files/datasets, delete the large files.



# Useful resources

- STORM Teams channel: [General | Grp-STORM | Microsoft Teams](#)
- [STORM2 Helpful Commands.docx](#)
- Dan Grose's intro: <https://github.com/grosec/storm2>
- Slurm cheat sheet: <https://slurm.schedmd.com/pdfs/summary.pdf>
- Usage guide: <https://ma-info.lancs.ac.uk/books/department-it-services/page/storm-ii-users-usage-guide>.
- Real time usage: [http://storm2/ganglia/?c=Storm2&m=load\\_one&r=hour&s=by%me&hc=4&mc=2](http://storm2/ganglia/?c=Storm2&m=load_one&r=hour&s=by%me&hc=4&mc=2)

