Summary of the tutorial

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### Running jobs on the Prince Cluster

#### Accessing the Prince Cluster
- From Windows workstation
- From Mac workstation

#### Software and Environment Module

#### Job script and resource request
- Introduction to job scheduling
- Submitting jobs with `sbatch`
- Requesting resources
- Using computing nodes interactively

#### Monitoring batch jobs
- Monitoring batch jobs - `squeue`
What is running and where?
slurmtop

Canceling your jobs

Compiling your own software

Putting all pieces together

An Amber example

A R example

Summary

• You can compile, edit scripts and view results on the login nodes, but **computational work should be run on the compute nodes**
• You can access compute nodes with **srun**
  • Either via a job script, or interactively
  • Compute nodes are allocated to jobs by the scheduler, so your job might not start immediately
  • Jobs must request resources, but mostly need not specify a queue.
  • Requesting just slightly more than when you expect to need is generally the best practice
• **Short jobs get higher priority, and short or small jobs are easier to schedule quickly**
• You can monitor your job's progress with **squeue, sstat, sacct, scontrol or slurmtop**
• Software is managed by Environment Modules
  • Use 'module avail' to find software packages
  • And 'module load' to load them into your environment
    • including within job scripts!
  • Use 'module purge' to return to a clean environment before loading a new set of modules
  • Other useful commands are 'module list' and 'module show'