### Summary of the tutorial

<table>
<thead>
<tr>
<th>Quick Links</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPC Home</td>
</tr>
<tr>
<td>Getting an account</td>
</tr>
<tr>
<td>Getting started on Prince</td>
</tr>
<tr>
<td>Prince How-to Articles</td>
</tr>
<tr>
<td>Logging in</td>
</tr>
<tr>
<td>Windows</td>
</tr>
<tr>
<td>Mac / Linux</td>
</tr>
<tr>
<td>Clusters and Storage</td>
</tr>
<tr>
<td>Prince (HPC)</td>
</tr>
<tr>
<td>Dumbo (Hadoop)</td>
</tr>
<tr>
<td>Dalmatia (NYU Abu Dhabi)</td>
</tr>
<tr>
<td>Transfering data to/from the clusters</td>
</tr>
</tbody>
</table>
Transferri
g data
to/from
Prince
cluster
using
Globus
Submittin
g jobs
with
sbatch
Available
software
Licensed
Software
Available
on the
HPC
Cluster
Building
Software
Slurm
Tutorial
Tutorials
FAQs
Scratch
Area
Cleanup
Programming for
Biologist
s
Acknowle
dge
Statement
Research
Gallery
HPC
People
HPC
Policies
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`