Introduction to HPC Maxwell, the University of Aberdeen Computing Cluster and Basic Unix Skills

A Beginners Guide to Maxwell and Unix for Genomics

NOTE DATE CHANGE!
Date: 1 pm – 5 pm, Tuesday 13th November 2018
1 pm – 5 pm, Wednesday 14th November 2018

Location: G21, Zoology Building, University of Aberdeen, Old Aberdeen Campus

Format: Instructor led computer based tutorial with support demonstrators.

Instructor: Dr. Sophie Shaw, CGEBM

Description: Analysis of next generation sequencing data typically requires high performance computing and use of bioinformatics programs on the Unix command line interface for optimal and fast processing of big data. Here we introduce the University of Aberdeen Computing Cluster, known as Maxwell, and teach you basic Unix skills enabling you to make the most of this valuable resource during analysis of NGS data. Each session has different content and therefore you will need to attend both sessions of this workshop.

Topics:

• What is Maxwell?
• Connecting to Maxwell
• Using Maxwell to submit and monitor jobs
• What is Unix?
• Unix file structure and hierarchy
• Simple Unix commands and programs
• Joining programs with pipelines
• Shell scripting

Who should attend: This workshop is aimed at researchers, staff and PhD students interested in using the Maxwell compute cluster to analyse next generation sequencing data and those looking to attend other workshops run by the CGEBM. The aim of the workshop is to demonstrate how to navigate the basics of the system. The aim is not for teaching detailed topic specific analysis. However, this will be covered in future training workshops.

Pre-requisites: A Maxwell account is needed. We are providing teaching accounts for all participants to use for the duration of the workshop. However if you would like to use Maxwell after the workshop you will need to obtain an account. For more details see http://www.abdn.ac.uk/staffnet/working-here/hpc.php. If you already have a Maxwell account you are welcome to use that.

This workshop is a pre-requisite for all other workshops being run by the CGEBM. If you plan on attending other workshops, please ensure you attend both sessions. If you have existing expertise in using Unix and/or Maxwell and do not consider this as a necessary pre-requisite, please email Sophie Shaw (s.shaw@abdn.ac.uk) to discuss to ensure you have the necessary skill level required to benefit optimally from the application specific workshops.
This workshop will be held over two different sessions and therefore you need to commit to attending both sessions if you wish to undertake this workshop.

**Closing Date for registrations:** 30/10/2018

**Closing Date for cancellations:** 02/11/2018. Full course fee will be charged for cancellations after this date.

**Cost:** For University of Aberdeen staff and PhD students the workshop is £80. Payments need to be made before registration and details of this are available on the registration form. Separate course fees apply for external delegates. Please contact Sophie Shaw (s.shaw@abdn.ac.uk) for details.

**Registrations:** Please fill out the appropriate registration form at [https://www.abdn.ac.uk/genomics/bioinformatics/training/](https://www.abdn.ac.uk/genomics/bioinformatics/training/).

**Further Information:** Please contact Sophie Shaw (s.shaw@abdn.ac.uk)