Submitting Parallel Jobs

1. Sometimes if you have a number of jobs to run at once (which you would do by submitting another “bsub” line while a program is running), you may run into licensing issues if you try to submit exclusively using the above methods. The cluster only has a certain number of MATLAB licenses, one of which is checked out every time a MATLAB function or script is run from a .serial file, and a single user seems to only be able to use 4 at once even though there are 16 licenses. A way around this is to use distributed computing, where a number of jobs are submitted from a single script.
2. To run these files, you will have to change both the job storage location in start\_jobs.m and the savepath in matlab\_func\_ints.m.
3. Read the comments on start\_jobs.m to understand what the commands do individually. As a group, they create a job that will be run using a single MATLAB license, meaning that you can run up to 16 codes at once without running into licensing issues.
4. Submit the .serial file as before, and then type “bjobs” to check on the progress of the job. If you repeatedly send this command, you will notice that the name of the job changes from what you called it (“-j” in the .serial file) to “Job1.1”, and you’ll notice that the job number changes in this same step.

Written by Brendan Cole, July 2015.