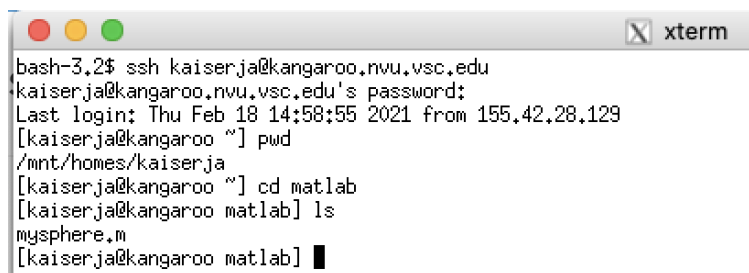# Using scp to download Linux files
How to use the scp command on MacOS

1. Open Xquartz by clicking on the icon in the dock, or by opening a Finder window, and going to Applications > Utilities > Xquartz

2. If you don't see an xterm window open, along the top, to the right of XQuartz, click the Applications menu, and click Terminal.

3. You'll need to know where you've been saving your Linux files (e.g. MATLAB scripts). To check this, login to kangaroo by typing in: **`ssh username@kangaroo.nvu.vsc.edu`** where *username* is your Linux username. And press Enter. You'll be prompted for your Linux password. It'll look like you aren't typing anything, but you are. Press Enter again.

4. You'll be logged into your Linux home directory, denoted by the tilde ~ character. If you've created a separate directory where you're saving your Linux files (e.g. MATLAB scripts), change directory to that directory by typing in: **`cd directoryname`** If you don't know the directory name, type **ls** to list all files and directories the current working directory.

5. Type **`ls`** to list all files and directories in the current working directory. If you've changed directories to the directory where you've saved your files, you'll see a list of the files. This tells you what the file name is, which you'll need in a later step.

   ```
   bash-3.2$ ssh kaiserja@kangaroo.nvu.vsc.edu
   kaiserja@kangaroo.nvu.vsc.edu's password:
   Last login: Thu Feb 18 14:58:55 2021 from 155.42.28.129
   [kaiserja@kangaroo ~] pwd
   /mnt/homes/kaiserja
   [kaiserja@kangaroo ~] cd matlab
   [kaiserja@kangaroo matlab] ls
   mysphere.m
   [kaiserja@kangaroo matlab] █
   ```

6. Type **`exit`** and press Enter to log out of kangaroo. You'll be back on your local computer, in /Users/*username* (username is the home directory name on your Mac).

7. Type in the following and press Enter to copy the file from your Linux home directory to your Mac's home directory:
   `scp username@kangaroo.nvu.vsc.edu:~/directoryname/filename .`
   > ➢ username is your Linux username
   > ➢ directoryname is the name of the Linux directory where you've saved your files. If you have subdirectories, you can add them between forward slashes (key next to Shift)
   > ➢ filename is the name of the file you want to copy (include any file extensions)
   > ➢ there is a single space and a single period at the end. This tells the scp command that you want to copy the file to the current working directory (i.e. your Mac's home directory)

8. You'll see a status update of how long it'll take to copy the file. Depending on how large the file is, this may take some time.

9. Confirm that the file has been copied by typing in **ls** and pressing Enter. You'll see your file listed, as well as any other directories.

10. To see this file in a Finder window, open a Finder window, and right click (Command + click) the name of the folder at the top center of the window. Click on your username. You'll see your file that you've downloaded, and then you can do whatever else you need to do with the file. For example, you can add the file as an attachment in an email or submit the file on Canvas.

Questions? Trouble? Please email: Jason.Kaiser@NorthernVermont.edu