Using PyCharm to run Python scripts on a remote host

1) Open a project (i.e. folder with python scripts) from your ~/t7home in PyCharm on your Mac.

2) The warning about file changes and case-sensitivity mismatch you can ignore for now.

3) If you haven't configured any python interpreter yet for the project, click on the link the message banner above your code window. Otherwise open the settings window from the the menu ‘PyCharm -> Preferences...’
4) Click on the little wheel icon in the top right and select ‘Add Remote’ from the popup menu.

5) Here you select the option ‘SSH Credentials’ and fill in the fields as shown above. Make sure to enter your u-account number and select the correct ssh key. Yours is probably just called ‘~/.ssh/id_rsa’.
6) Use the exact same path for the python interpreter as shown in the screenshot. Don’t replace u237002 by your own u-number here.
   Interpreter path: /dev/shm/u237002/anaconda36/envs/python36/bin/python

7) Now it is time to setup the path mapping. PyCharm needs to know which remote path corresponds to the local path to be able to execute your script on the server. Clicking on the ‘…’ to right of the path mappings field opens the following dialog.
8) Click on the ‘+’ sign to create a new path mapping. Then enter the local path (a) where the thunder home directory is mounted in the left column and the remote path (b) to your home directory on thunder7 in the right column.
9) Now you can select ‘Run -> Run…’ from the menu to execute your script.
10) If already had a local python interpreter configured for the script/project, you need to select ‘Run -> Edit Configurations…’ and select the new remote python interpreter from the options list.
11) As you can see in the output window above, the script has been executed on thunder7.
12) Note that this setup currently doesn’t support opening windows remotely. It is therefore recommended to set the matplotlib backend to ‘Agg’ and export plots directly as a pdf file instead of opening them interactively. This can be done by setting the MPLBACKEND environment variable to ‘Agg’ to your Run/Debug configuration via the menu ‘Run -> Edit configurations…’.