STARFISH SCHOOL

A Virtual Bootcamp for Astronomy Graduate Students

WEEK 1 EXERCISES

Version 1.1

This Week's Exercises

- Make a shared google doc with all the tips that have been useful to you
- Set up an overleaf document with AAS, MNRAS, etc. template
- Sign up for an ADS account
- Set up a weekly e-mail reminder
- ADS exercise
- Make a Trello board for your life
- Make a new directory, and copy a file from a server that we'll give you

Shared Google Resource Doc

One of the challenges throughout grad school (as well as throughout your research career) is that you'll run into/be told about resources that aren't relevant at the exact moment you hear about them, but will help you very soon after. As well, resources that you know may be exactly the thing something else needs. In this exercise, you'll create a doc that you can keep with you as you go forth

1. Find one or two other Starfishians to work with
2. Create a shared google doc listing out resources that you've found useful to yourself or have learned about.
3. Come up with a way to categorize/organize the resources
4. Share your collective resource doc during the share session at the end of today

Overleaf/Latex

In this exercise, you'll be creating a basic latex document, and adding a few citations.

1. Create a LaTeX document on Overleaf with the AASTex Style
2. Find your favourite PNG graphic/picture and add it to the document, with a caption as to why this is your favourite.
3. Typeset your favourite equation using LaTeX. Tell us why it's your favourite equation.

Stretch Goals:

4. Have a play changing settings (e.g. one column, two column etc.) and bibliography style
5. Head over to **https://www.overleaf.com/3591538747zbwxpqjsryfm** and leave a few comments using the 'Review' tools

Researching and Citing the Literature

In this exercise, you are going to start working with ADS

1. Sign up for an ADS account (If you haven't already)
2. In your ADS account, create a library on a topic that interests you (e.g. black holes, gravitational waves, etc)
3. Find at least five papers on that topic (maybe choose highly cited ones? Recent ones?) and add them to the appropriate library in your account
4. Pick a paper from your library, get the bibtex code, put into the .bib file on your overleaf document, and make a citation to the paper in the .tex file. Make sure the overleaf compiles properly 😊
5. Export entire library to bibtex file and add it to your Overleaf document .bib file
6. Find a friend from Starfish School, and add them as a collaborator to your library under "Manage Access"

Stretch Goals:

- Create another library on your ADS account for a different topic, and add 5 papers. In the library you just created, use the "Citation Helper" to find other relevant papers and add them to your library too!

- Check out other features for libraries under the “explore” option
- Set up Google Scholar so you can see the “Get it @ UofT” link
- Set up an ADS weekly reminder for papers that are relevant to you

Project Management/Trello

In this exercise you’ll start your grad projects off right with some project management tools.

1. Make an account at trello.com and start a project board. If you want an intro into how to get around, check out this demo: **https://www.youtube.com/watch?v=xky48zyL9iA**
2. Think of how you might want to go about organising your ‘cards’ and spaces
3. Practice using labels – talk to some of your fellow Starfishes about what scheme you’ll use: colour for projects, color for research/TA-ing/courses?

Stretch Goals:

- Add a to-do list to one of your cards
- Add some deadlines to your cards

Playing with the Terminal

In this exercise, you’re going to make a directory, and copy a file over from a special server that’s been set up just for you!

1. In your home directory, create a directory called “starfish_school”
2. Copy over the only file in the directory called “importantfiles” on the server we’ve set up for you at the following location: ec2-**18-130-251-83.eu-west-2.compute.amazonaws.com**. We will provide the user name and password for the server in the Slack Channel. How large is the file?
3. Create your own ssh key using the command **ssh-keygen.** Use the **man** command to figure out what the options are for this command.

Stretch Goal:

- Use the ssh key that you’ve just created to log in to a different server that you might use (not the amazon aws server). Ask us if you don’t have another server that you happen to use.