**Registration:** <https://docs.google.com/forms/d/e/1FAIpQLSc-qG6CE6wM0AwMHjPr-uywHc33zuqaaUs6JsWqFuHFU3TTJw/viewform?usp=sf_link>

**Summary:**

This workshop will cover the basic theory and skills needed to use Git and GitHub in projects. Students will learn what a version control system is and how they facilitate project management and collaboration. Students will also learn how to use Git to manage local projects and how to use GitHub to collaborate on larger projects. This workshop is intended for any student or researcher looking for a better way to keep track of changes in their projects.

The workshop will be split into modules. The first module will focus on theory whereas the subsequent modules will have small theory segments followed by hands-on activities. Each module will also end with short review questions to ensure learning objectives are met.

**Modules:**

1. **Intro to Git and version control systems**
   1. What is a VCS and why should we use them?
   2. What is Git?
   3. Git vs. GitHub
   4. Git Pipeline
   5. Review Questions
2. **Basic features of Git**
   1. Creating a new project \*
   2. Adding, modifying, and removing files \*
   3. Commits and good practices \*
   4. Reverting Changes
   5. Review Questions
3. **More advanced features of Git**
   1. Branching \*
   2. Merging \*
   3. Rebasing and Conflicts \*
   4. Review Questions
4. **Working with remote repositories through GitHub**
   1. Collaboration and Open Science
   2. Pushing commits to GitHub \*
   3. Pulling commits from GitHub \*
   4. Cloning and Forking repositories (time allowing) \*
   5. Pull Requests (time allowing) \*
   6. Review Questions
5. **Conclusions and Discussions**
   1. Main takeaways and questions
   2. GitHub Project ideas to hone skills

**Extra:** If time allows, I will show students how to use Git through the command line prior to the conclusion of the workshop