Championing Code Documentation

Sharing well-documented code along with research data has become essential in today’s data-driven computational science.

**Why?**
- Your future self will appreciate the reminder
- Others will be able to reuse your code and build upon it
- You will be cited and get credit for your work
- Your work will be more transparent and reproducible

**What?**
- Specification of what the code does
- Description of why the code was written that way
- Procedures on how one can use it
- Requirements and conditions for reuse

**Why?**
- Document as you progress. Do not leave it for last!
- Use Git or another version control system to track and manage changes in your code.
- If more than one code, specify their sequence of execution and name files accordingly.
- Create a master file to run all your codes sequentially.
- Always use relative paths in your code when calling or saving files.
- Describe the computing environment and all dependencies needed to run the code.
- Ensure that all variables and values in your dataset are clearly labeled and match the code.
- Identify the creators of the code and the last update date.
- Specify the license governing your code.
- Add inline comments to your code to help others understand it.

**How?**

**When adding inline comments to your code, consider these rules:**

1. Comments should not duplicate the code.
2. If you can’t write a clear comment, the code may have a problem.
3. Explain unidiomatic code in comments.
4. Provide links to the source of copied code.
5. Add comments when fixing bugs or marking incomplete implementations.