Unix Command Cheat Sheet

# Navigating the File System

**pwd** Prints the current working directory.

**ls** Lists the contents of the current directory.

**ls -l** Lists contents in long format (permissions, owner, size, date).

**cd [directory]** Changes the directory to [directory].

**cd ..** Moves up one directory level.

**cd ~** Changes to the home directory.

# Working with Files and Directories

**mkdir [dirname]** Creates a new directory named [dirname]. **touch [filename]** Creates a new empty file called [filename].

**cp [source] [destination]** Copies a file or directory.

**mv [source] [destination]** involves or renames a file or directory.

**rm [filename]** Deletes a file.

**rm -r [dirname]** Recursively deletes a directory and its contents.

# Shell Scripts and Permissions

**chmod +x [script.sh]** Grants execute permission to the shell script.

**./[script.sh]** Runs the shell script.

**%%bash** Used in Jupyter notebooks to run shell commands in a cell.

# Looping Over Files (in scripts)

| **Example** | **Description** |
| --- | --- |
| for file in \*.fits; do python pipeline.py "$file"; done | Loops over all .fits files and runs a Python script for each one. |

# General Tips

* Unix Shell = CLI interface for interacting with Unix OS.
* BASH (Bourne Again Shell) = Most commonly used Unix shell.
* Use scripts to automate, standardize, and reproduce tasks.