Version control with `git` + `ssh` and collaborative software development with `conda`

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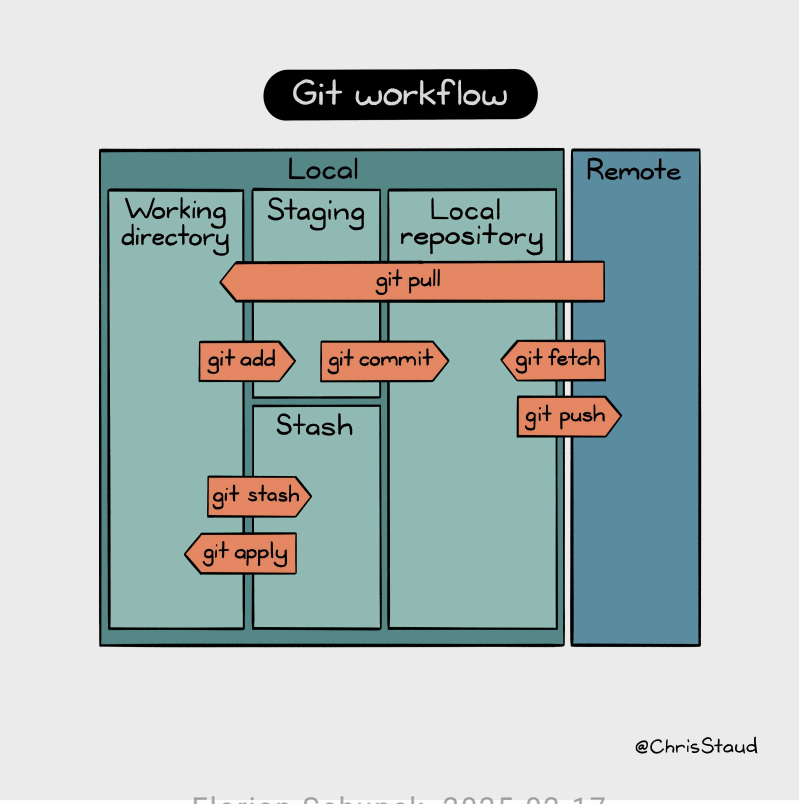
Why do we want to do version control and collaborative software development?

- We can easily distribute code, and revise it, discuss changes, go back in time ⏱️
- The power of many! Many people can build much better and more stable software than a single person
- **Free backups** 😎 No more loss of code (and manuscripts)
- **Versioning** of software

Basically the moment you are writing software that you would like to use more than once, you should start thinking about version control

How does git (version control) work?

Transferring files between local and remote places, keeping **copies** of files and updating them incrementally, to have a history of file changes



How does git (version control) work?

- `git` (https://git-scm.com) is by far the most common tool to do version control. It is usually, but not necessarily, coupled with remote repositories that act as a remote mirror of the local repository such as https://gitlab.uni-onsabrueck.de
- `git` is a command line tool, this means it is used with the terminal (linux, mac), cmd or powershell (Windows). Whenever you need to understand how git works, it is **help**ful to consult `git --help`

Practice 🛠️

Go to: https://github.com/flo-schu/collaborative-software-development and follow the README

```
git clone git@github.com:flo-schu/collaborative-software-development.git
cd collaborative-software-development
```

Hands on Git