

Effective use of Bash, Git, and Python

- **Tutorial organizers:** The INCF/OCNS Software Working Group (<https://ocns.github.io/SoftwareWG/>)
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- **Tutorial Format:** 2 day satellite tutorial
 - 3 multi-hour tutorial sessions
 - Requested days: Monday, Tuesday before CNS*2021: 28/29 June

Abstract

Contemporary neuroscience is heavily reliant on computing. From computational modelling to the analysis of data gathered from experiments, all tasks in the neuroscience research pipeline require a basic knowledge of common computing tools. Yet, the multi-disciplinary nature of neuroscience research implies that many of us do not hail from computing disciplines, and therefore have not received formal training in this area.

Keeping in line with its goal of improving technical software/computing knowledge in the research community, the INCF/OCNS Software working group (WG) will hold hands-on tutorial sessions to discuss the usage of three commonly used tools:

- Bash: using the command line effectively.
- Using Git to manage your content and work collaboratively on GitHub.
- Best practices while using the Python programming language

These tutorials are intended for users with intermediate skill levels---users who may have used these tools but have not had the opportunity to learn them in a structured way. The sessions will cover useful (but perhaps less commonly known) features to show users how these tools can be used on a daily basis to make their research work-flows/pipelines cleaner, less error prone, more efficient, and potentially automated.

Software Tools

- Bash: <https://www.gnu.org/software/bash/>
- Git: <https://git-scm.com/>
- GitHub: <https://github.com>

- Python (version 3): <https://python.org>