Reproducibility for Matter Research

Report of Contributions

Contribution ID: **1**   Type: **not specified**

Reproducibility in Research by Reproducibility4Everyone

Thursday 17 March 2022 10:00 (1h 30m)

Rigor and reproducibility are at the core of modern science and set apart scientific inquiry from pseudoscience. Many new initiatives and tools have been established to address barriers to reproducibility. While very welcome, these projects have led to a proliferation of online tools and resources which can be hard to sift through. Reproducibility for Everyone (R4E) https://www.repro4everyone.org/ is a community-led
education initiative that runs accessible workshops to introduce the concept of reproducibility to researchers worldwide.

In this workshop we will demonstrate reproducible tools and methods that can improve research by making it more efficient, transparent, and rigorous. We will cover the following topics:

- introduction to reproducibility in research
- data management
- protocol and reagent sharing
- bioinformatic tools
- data and code sharing
- data visualisation and analysis

Following this workshop, participants will be able to apply a conceptual framework for reproducibility, replicability, and robustness of their own research.

Presenters: SEIBOLD, Heidi; AUER, Susann (TU Dresden)

Contribution ID: **2**   Type: **not specified**

Foundation of Research Software Publication

Thursday 17 March 2022 13:30 (1h 30m)

We will provide you with actionable advice about how to prepare your research code before publishing it or submitting it alongside a research publication.

This talk will cover the following topics:

- Code repository structuring
- Minimum coding practices
- Documentation
- Open source licensing
- Minimum software release practices
- Software citation

We will discuss theses topics at the example of a data analysis script and will focus on minimum practices for every topic.

Presenter: SCHLAUCH, Tobias (DLR)