

# **Reproducibility in Scientific Research**

**We're doing it wrong**

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# What are we talking about?

- Repeatability: same team, same setting
- Reproducibility: different team, same setting
- Replicability: different team, different setting, can be re-implemented

# What reproducibility can do for the others

- Colleagues/students
- Reviewers
- The research community
- The world!

# What reproducibility can do for you

- Better control over your workflow
- Higher confidence in your results
- Quicker prototyping
- Think of yourself in five years' time as *a different person*

# Tricks of the trade

- Git: Commit *before* experiments and tag the results
- Build a script cascade
  - One "root" `run.sh` script
  - Several child scripts ( `figure1.sh` , `exp1.sh` , ...)
- Provide a Docker container image (please!)
- TELL ME YOUR RANDOM SEED
- And infinitely many others
  - `pip` / `conda` / `maven`
  - notebooks
  - Automatic LaTeX report generation

# Conclusions

- *Design* your workflow to be reproducible
- Don't be lazy
- YOU FORGOT THE RANDOM SEED

**One more thing...**

main 1 branch 0 tags

Go to file

Add file

Code

marcoesposito\_di re-add all builds

fc93a0f 2 minutes ago 6 commits

builds	re-add all builds	2 minutes ago
figures	slides stub. First README commit	41 minutes ago
LICENSE	Initial commit	19 hours ago
README.md	stable slides version	8 minutes ago
compile_linux.sh	fix input bug in compile_linux.sh	35 minutes ago
pitchme.md	stable slides version	8 minutes ago

README.md

# A reproducible slide presentation about reproducibility

This repository host the source code for the slides used for a talk about reproducibility in scientific research within the 2021 DiDo Workshop held in Bertinoro, Italy.

The slides use [Marp](#), a Markdown presentation ecosystem.

The goal of all this is to make it possible and easy to reconstruct the workflow for building the slides.

Additionally, you can use this repository as a boilerplate for building slide presentations using Marp.

## Building the presentation

## About

A reproducible slide presentation about reproducibility

[Readme](#)[Unlicense License](#)

## Releases

No releases published  
[Create a new release](#)

## Packages

No packages published  
[Publish your first package](#)

## Languages

HTML 99.1% Shell 0.9%