

# Thesis Topic

## Reproducibility of Jupyter Notebook Analyses

CRC 1270 ELAINE

Max Schröder

2018-11-22



### Contact information:

Supervisor Max Schröder (mail: [max.schroeder@uni-rostock.de](mailto:max.schroeder@uni-rostock.de))

## 1 Objective

Jupyter notebooks are a trending mechanism for combining documentation and source code within scientific analyses. With increasing Open Science awareness, such notebooks often can be found as supplement for the corresponding publications. However, despite the public availability of many research artefacts, the analyses often cannot be reproduced.

The task is to analyse publications with respect to their completeness and reproducibility of the analyses. In particular this includes:

- Surveying factors that support and prevent reproducibility
- Collecting and analysing publications with respect to their research artefacts
- Investigating the reproducibility of the available Jupyter notebook analyses

## 2 Requirements

- Conscientious and precise way of working
- Good programming skills in Python as well as experiences with Python development tools
- Experiences with Jupyter notebooks
- Experiences with Docker
- Experiences with source code versioning systems, e. g. Git and SVN

If you are interested, please apply via email. Please include a list of your latest projects and application specific experiences.

