

Proposal for pre-conference workshop – AGILE 2018

Lund, Tuesday 12 June 2018

<http://www.agile-online.org/index.php/conference/conference-2018>

1. Workshop name/title (and acronym is applicable)

Reproducible Research Publications at AGILE (RR@AGILE)

2. Description of the workshop by listing topic(s), objective(s) and planned outcome(s)

2.1 Topic(s)

reproducible research, open science, reproducibility, software carpentry, data carpentry, reproducible paper

2.2 Objective(s)

The workshop aims to continue the efforts started at AGILE 2017 in establishing the topic of reproducible research at AGILE conferences. In fact, the workshop is co-organized by last years organizers and participants.

Skills about reproducing other researcher's work and creating own publications in a reproducible way are crucial for future scientists as more and more research is based on data and computer algorithms. In this workshop, the participants learn about concrete tools and best practices for working reproducibly, thus being able to increase the reproducibility and subsequently the quality of future AGILE contributions.

2.3 Planned outcome(s)

- spreading the knowledge about reproducible research practices in AGILE member labs
- introducing participants to tools/software for reproducible research publications
- learning about experiences of AGILE participants with reproducibility
- report on the workshop website (cross posted on involved organisations blogs)

- recruiting new *expertise/co-organizers from the participants for a full-day workshop at AGILE 2019*

3. Abstract

Reproducibility and replicability of research gains more attention each year across many domains, but at AGILE conferences the topic is underrepresented. This half-day workshop introduces interested scientists to reproducible research and gives hands-on guidance on how to increase reproducibility of their work.

Agenda

1. Introduction to reproducible research [15 min.]
2. Reproducibility at AGILE today [15 min.]
3. Hands-on: **Reproducing a publication** [180 min. including break]
 - Reproduce a prepared computational analysis from a real paper (either R or Python code)
 - Transform typical publication into a reproducible document (literate programming with R Markdown, Jupyter Notebook, scripted GIS)
 - Publish the analysis in a research data repository
4. Reproducibility at AGILE tomorrow & Feedback [30 min.]

Registration is open until **April 22 2018** via [a new issue on the workshop repository](#).

Details on the workshop website: <http://o2r.info/reproducible-agile>

4. Short description of the intended length (half day) and the format of the workshop

Half day workshop with a mixture of lecture, hands-on practical work (depending on participants interests in two split-up groups), and discussion.

5. Brief statement of the relevance of the workshop for AGILE

This workshop is a follow-up to last year's successful introduction of reproducible research at AGILE. The relevance of Open Science and reproducible research has not changed! On the contrary, the overarching challenge to develop guidelines and feature examples for the AGILE community still prevails.

While the workshop format had to be adjusted last year as the submissions were too low for the then planned format, the topic was taken up during the conference in many conversations and by presenters during their talks. This year, the organizing committee is

strengthened further and wants to keep the steady pace to establish reproducible research practices at the AGILE conference.

The workshop's hands-on approach is a complementary feature to the list of AGILE workshops and relevant to all of AGILE's attendees, but especially valuable for early career scientists, who are just beginning to establish their way of practicing science.

6. What is the approximate number of expected participants?

10-20

7. Names and e-mail addresses of the organizing member(s)

Leading AGILE member (or sponsor) and contact person:

Institute for Geoinformatics, University of Münster, Daniel Nüst, daniel.nuest@uni-muenster.de

Contributing AGILE members (including the persons involved) – at least one seconding AGILE member is needed:

- Faculty of Geo-Information Science and Earth Observation (ITC) of the University of Twente (Frank Ostermann, Valentina Cerutti)
- Interfaculty Department of Geoinformatics – Z_GIS, University of Salzburg (Barbara Hofer)
- Institute for Geoinformatics, University of Münster (Daniel Nüst, Markus Konkol)
- OTB - Research Institute for Housing, Urban and Mobility Studies, Technical University of Delft (Rusne Sileryte)
- *Department of Information Systems, University of Jaume I (Carlos Granell)*

Organizing Committee (if applicable): see involved persons at contributing AGILE members

8. Additional information about previous workshops, if held.

<http://o2r.info/agile-2017/>

9. Expected resources needed

- one lecture/hands-on room
- one or two additional break-out rooms for hands-on sessions
- internet connection for all participants

- digital projector (in all rooms)
- flip charts or whiteboard (if possible), one per room

10. Other information

The workshop potentially targets the same audience, i.e. people interested in open science and data science, as another workshop proposal on research data management. For people interested in both topics, it would be very welcome to schedule the workshops after each other: research data in the morning, and writing the reproducible publication in the afternoon.

Submission by e-mail to: agile18-science@gis.lu.se