

# CRC 1114 PhD Workshop 2021

## Program

21<sup>st</sup> to 23<sup>th</sup> July, 2021

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### Intro

The workshop will take place online building on skills of team-building, coding and scientific visualisation. You can register by simply emailing us indicating your preference for the beginner or advanced coding tutorial.

### Equipment

You will need a computer, stable internet connection and a webcam. It would also be beneficial if you have a quiet working space and do not sit with a window behind your back.

### Preparation

Each PhD student should prepare a rapid-fire presentation (2 minutes) to introduce their research and the key findings. The trainers of the coding and graphic workshops will contact you directly with any preparation material.

### Socialising event

The regulations on social gatherings are regularly being updated. We will send a poll to the attendees on their preference for the social event.

### Program committee

George, Sebastian and Sina  
contact: [phdworkshop2021@lists.fu-berlin.de](mailto:phdworkshop2021@lists.fu-berlin.de)

If you have any questions, please don't hesitate to contact us. We also welcome any suggestions regarding the socialising event.

## Wednesday, 21<sup>st</sup> July

- 10:00** Welcome address by Ralf Kornhuber
- 10:30** PhD rapid-fire presentations
- 12:30** Lunch break
- 13:30** CRC Wiki session
- 16:00** End of workshop day & start socialising event

## Thursday, 22<sup>nd</sup> July

### Group 1

- 09:00** Graphics workshop
- 12:30** Lunch break
- 13:30** Graphics workshop
- 17:00** End of workshop day

### Group 2

- 10:00** Coding workshop / Beginners tutorial
- 12:30** Lunch break
- 13:30** Coding workshop / Beginners tutorial
- 16:00** End of workshop day

## Friday, 23<sup>rd</sup> July

### Group 1

- 10:00** Coding workshop
- 12:30** Lunch break
- 13:30** Coding workshop
- 16:00** End of workshop day

### Group 2

- 09:00** Graphics workshop
- 12:30** Lunch break
- 13:30** Graphics workshop
- 17:00** End of workshop day

## Coding workshops

Advanced by **Victor Brekenfeld**

<http://www.mi.fu-berlin.de/w/Main/VictorBrekenfeld/>

Whilst most researchers are able to code, organising and well-documenting code whilst maintaining optimum performance can be challenging. This workshop wants to focus on some tips on these skills. We will work with your first-hand examples to discuss concepts of modularization and other best coding practices. We will round up the session with some general tips and tooling recommendations.

Beginner by Dr. **Michael Rudolf**

<https://www.gfz-potsdam.de/en/staff/michael-rudolf/>

The beginner tutorial is designed for people with limited to no prior experience coding. The tutorial will be run as a series of 1 hour blocks covering various topics such as setting up the coding workspace and individual components of programming languages. The tutorial will also include hands-on components. You will be contacted beforehand so that the tutorial can be customised to your needs and learning objectives.

## Schematic Graphics seminar

by Dr. **Marwan Abdellah**

<http://marwan-abdellah.com/>

While information visualization can be programmatically generated relying on advanced Python libraries such as matplotlib, plotly, pandas and seaborn, creating high quality, impactful and demonstrative infographics for scientific content remains challenging for research scholars and scientists, in particular who have neither the technical skills nor the knowledge of the necessary elements to design and create these infographics. This workshop will address this major concern and provide a high level overview on how researchers can design and build high quality and informative schematic graphics content using free software tools.

### Contents

- Introduction to data and scientific visualization
- From raw data to visual representations and schematics
- What is the role of a scientific media illustrator?
- Simple, but sometimes effective tools, such as PowerPoint and Keynote
- Introducing design elements and some 2D and 3D dedicated tools
- Adding the artistic touch
- Combining infographics with scientific plots.