

# Software Writing Skills for Your Research

## - Workshop for Proficient -

*December 14-16, 2015*

Location: Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences, Telegrafenberg, 14473 Potsdam, Germany ([directions](#))  
Building: A27 (Großer Refraktor / GeoLab, [map](#))  
Instructors: Martin Callaghan, University of Leeds, UK  
Edwin van der Helm, Leiden University, The Netherlands  
Speakers: Lidia Stępińska-Ustasiak, University of Warsaw, Poland  
Organizers: Martin Hammitzsch, GFZ German Research Centre for Geosciences, Germany

### About

See <http://www.gfz-potsdam.de/?id=5097> for information about this workshop.

### Material

The material for the different lessons is available online at following locations:

- Recap on shell scripting and advanced techniques
  - [https://github.com/vdhelm/teaching/blob/master/bash\\_intro.sh](https://github.com/vdhelm/teaching/blob/master/bash_intro.sh)
  - <https://github.com/callaghanmt/shell-training>
- Profiling and debugging your Python codes
  - <https://github.com/callaghanmt/sc-leeds-profiling>
- Unit testing
  - <http://katyhuff.github.io/python-testing/>
- Making your code run faster
  - <https://github.com/vdhelm/teaching/blob/master/Numpy.ipynb>
  - [https://github.com/callaghanmt/numba\\_cy/tree/master/cython](https://github.com/callaghanmt/numba_cy/tree/master/cython)
- Creating and managing packages and modules
  - [https://github.com/callaghanmt/mod\\_package](https://github.com/callaghanmt/mod_package)
- Advanced data visualisation
  - <http://isakiko.github.io/D3-visualising-data/>
- The power of object oriented programming
  - <https://github.com/vdhelm/teaching/blob/master/OOP.ipynb>
- Automation and Make
  - <http://swcarpentry.github.io/make-novice/>

### Recordings

The lessons of the workshop were recorded. The recordings were collected in a playlist and are available on YouTube at <https://goo.gl/txDsnc>.