Level Up Your Coding: Digital Research Skills and Tools for Programming Beginners

Objective

This online course will teach beginner scientific programmers the practical skills needed to program more efficiently, improve code readability and reduce bugs. These digital research skills are becoming increasingly important as datasets get larger and custom written analysis tools become more and more widely used. Most scientists get little formal training programming and those who do attend courses designed for people working as software developers in industry, who have quite different needs for code performance. Programming beginners can learn about some of the most important tools and best practices used by developers that are useful for scientific coding.

Description

You will learn about:

- Best practices for writing readable and bug free code
- Tools created by software developers that increase your coding efficiency

The topics that will be covered are:

- Coding style
- Bad coding practices
- Code modularization
- Project planning
- Documentation
- Error checking

Tools that will be covered are:

- git
- github
- debuggers
- profilers

You are encouraged to attend this workshop as early as possible, as the earlier you include these practices in your work routine the better. This workshop is aimed at scientists starting to write code to analyse their data. After the workshop you should be able to write better, code faster and with fewer errors.

Methodology

- Lectures
- Practical exercises
- Q & A

Conditions

- Basic programming skills (i.e. you have written some code)
- Laptops must be brought with git (https://git-scm.com/) installed

Organizational Information

<table>
<thead>
<tr>
<th>Language</th>
<th>English</th>
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<tbody>
<tr>
<td>Target group</td>
<td>Doctoral Candidates at all stages and Postdocs from all faculties</td>
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| Date       | Wednesday, 12 May 2021, 13:00 - 17:00  
             | Monday, 17 May 2021, 13:00 - 17:00 |

For registration click here