# 9th Workshop on Maborative Scientific Development and Open Source Managemer Scientific Packages

28 November - 9 December 2022 An ICTP Meeting Trieste, Italy

Further information: http://indicø.ictp.it/event/9781/ smr3696@ictp.it

Writing software has become central to research in many fields of science. This school aims to give early-career scientists an introduction to a variety of topics that help them to write efficient, clean, maintainable and long-lived code that is useful beyond solving an immediate problem. In a mixture of talks and many hands-on sessions, the focus lies on showing best practices and building fundamental skills in creating, extending and collaborating on modular and reusable software.

# **Topics:**

- Python / shell scripts as glue code
- Introduction to computer architectures and software optimization
- Modular, reusable software design
- Effective collaborative development with multiple co-authors
- Version control and release cycles
- Automated testing frameworks
- Structured documentation
- Management of open source scientific packages
- Continuous integration & deployment
- Visualisation as a development tool
- Conversational development

# **Prerequisites:**

Participants are expected to have some experience in a programming language; this course is not suitable for beginners in programming.

# How to apply:

Online application: http://indico.ictp.it/event/9781/

Female scientists are encouraged to apply.

#### **Grants:**

A limited number of grants are available support the attendance of selected participants, with priority given to participants from developing countries.

There is no registration fee.

## **Lecturers:**

A. CORBETTA, Eindhoven University of Technology, **The Netherlands** 

A. FARNUDI, École Normale Supérieure de Lyon, France

L. GARRISON, University of Bergen, Norway

I. GIROTTO, ICTP, Trieste, Italy

D. GRELLSCHEID, University of Bergen, Norway

#### **Directors:**

A. CORBETTA, Eindhoven University of Technology, **The Netherlands** 

I. GIROTTO, ICTP, Trieste, Italy

D. GRELLSCHEID, University of Bergen, Norway

# **Local organiser:**

I. GIROTTO, ICTP, Trieste, Italy

### **Deadline:**

14 October 2022







