



## School on Open Science Cloud (SOSC) Perugia, June 5-9 2017



As part of the activities of the **European Joint Doctorate on TCCM** (ITN-EJD-TCCM), the first edition of SOSC, jointly organized by the Chemistry, Biology and Biotechnologies and the Physics and Geology Departments of the University of Perugia and INFN, will be held in Perugia, Italy, on June 5-9, 2017.

### Scientific Program

This school aims at training young researchers in Molecular sciences, Physics and IT the use of distributed and cloud computing for research and innovation and is organized to provide a comprehensive introduction to scientific computing, with particular emphasis on the Cloud infrastructural solutions for scientific applications.

Main paradigms will be reviewed and specific hands-on sessions will be organized to train young researchers on both general scientific programming and specific topics, like Molecular sciences and Statistical Methods for Data Analysis. Educational applications will be also reviewed.

The detailed agenda can be found at the following:

<https://indico.cern.ch/event/605204/overview>

Topics covered by the school are:

- **Introduction to Scientific Computing**
  - Scientific computing an historical and inspired view
  - Perspectives, funding, European model
  - Big experiments: Computing Challenges
  - Scientific Programming
- **Cloud and workflows**
  - Introducing Cloud Computing
  - Science in OpenStack
  - Introduction to parallel computing
  - Workflows in Molecular Sciences
- **Applications I: Molecular Sciences**
  - Molecular Dynamics
  - Quantum Dynamics
- **Applications II: Statistical Methods, Data Analysis and Processing**
  - Statistical Methods in Data Analysis
  - Deep Learning
- **Educational**
  - LibreEOL
  - GLOREP

Lectures will be given by speakers directly involved in the design, development and management of the most important actions related to the European Cloud Infrastructure, as well as experts in the specific topics of the school.

Participation is limited to 25 PhD students among Chemistry, Physics and IT. Support is also possible for few of them and can be requested directly to the School secretariat. Accommodation will be also provided inside the University campus.

Avenue: Department of Physics and Geology - Physics Building

Detailed information about the school, transportations, logistics and lectures are available at the following link:

<http://www.fisgeo.unipg.it/SOSC17>

### **School contact:**

School On Open Science Cloud 2017 - June 5-9 2017  
Department of Chemistry, Biology and Biotechnologies  
sosc17@fisgeo.unipg.it  
tel. +39 075 585 5527

### **The organizing committee**

Antonio Laganà - Università degli Studi di Perugia  
Daniele Spiga - INFN  
Leonardo Pacifici - Università degli Studi di Perugia  
Livio Fanò - Università degli Studi di Perugia  
Noelia Faginas-Lago - Università degli Studi di Perugia