

2nd IMaSS Hands-on DATA ANALYSIS SCHOOL

Location

Università di Firenze - Aula Informatica Cubo 1, Viale Pieraccini 6, Firenze

Organizers

Pietro Franceschi, Giuseppe Pieraccini, Samantha Riccadonna, Riccardo Romoli

Dates

17 - 19 Ottobre 2018

Fee

300 € (250 € for IMaSS members)

Aims of the School

The aim of the School is to develop and improve advanced data analysis skills in the fields of Proteomics and Metabolomics. Teachers will guide the students through several hands-on sessions on local PCs, working in the R statistical environment.

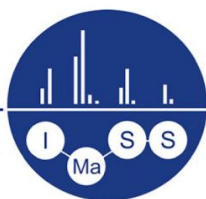
Topics:

- Introduction to R and R Studio
- Data preprocessing in metabolomics (GC/LC-MS) and proteomics
- Data preprocessing in NMR
- Uni- and multivariate representation of complex data
- Advanced data analysis techniques (PCA, PLS, Random Forest)

Program

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|-----------------------------|--------------|
| October 17, 2018, Wednesday | |
| 13:00 - 14:00 | Registration |





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| 14:00 - 14:15 | <i>Welcome and introduction</i> |
| 14:15 - 16:30 | <i>Introduction to R and RStudio</i> |
| 16:30 - 18:30 | <i>Univariate data analysis and representation</i> |
| October 18, 2018, Thursday | |
| 9:00 - 11:30 | <i>LC/GC-MS Metabolomics : Introduction and data preprocessing</i> |
| 11:30 - 13:00 | <i>NMR Metabolomics: Introduction and data preprocessing</i> |
| 14:30 - 15:30 | <i>Proteomics: Introduction and data preprocessing</i> |
| 15:30 - 18:30 | <i>Multivariate data analysis and data representation</i> |
| October 19, 2018, Friday | |
| 9:00 - 12:00 | <i>Application to real-life analytical problems</i> |

Teachers:

Pietro Franceschi (Fondazione E. Mach - Trento)
 Giuseppe Pieraccini (Università degli Studi di Firenze)
 Riccardo Romoli (Università degli Studi di Firenze)
 Samantha Riccadonna (Fondazione E. Mach - Trento)
 Gianluca Paredi (Università degli Studi di Parma)
 Leonardo Tenori (Università degli Studi di Firenze)

Who should attend:

PhD students, researchers and technicians working in NMR and MS based metabolomics and proteomics

