



## RISIS TRAINING – CALL FOR SUBMISSION



**SAPIENZA**  
UNIVERSITÀ DI ROMA

### *Data Quality for Research and Higher Education Studies Methodological Course*

DIAG Department  
Sapienza University of Rome  
Rome, 15-17 September 2020  
Online, on Sapienza Meet Platform

#### COURSE PRESENTATION

The quality of data and of related information is crucial to add value and improve the awareness and better exploitation of the available data, enhancing data quality-aware empirical investigations for studies in Research, Education and Innovation.

#### OBJECTIVES:

- Introduce the participants to the importance of Quality issues for Data on research and higher education studies;
- Provide the participants with the basic knowledge for understanding and use data quality techniques in their context;
- Propose a tool for implementing a minimum set of Data Quality techniques in their context of application;
- Offer tutorials on the main software that will be used during the course;
- Encourage the participants to explore the proposed tool with their own datasets;

- Offer the possibility to interact with the Course's lecturers to have advice on their own specific needs;
- Expose participants to seminars on advanced topics related to data quality issues and methodological approaches.

## CONTENTS:

- Data quality for research and higher education studies: where we stand and where we are going;
- Laboratory sessions: introduction to the software;
- Accounting for data quality by analyzing accounting systems;
- Basic data quality tool: introduction and exercise;
- Imputation techniques: presentation and implementation;
- State of the art of advanced methods and challenges ahead.

## PROGRAM OF COURSE

The course will be organized with several sessions of Lectures/Seminars and Laboratory sessions, organized in 3 days, for a total of 14 hours, as follows:

### Tuesday 15 September 2020

15:00 - 16:30 **Welcome of participants and introductory lectures**

**Introduction: the challenge of data quality for Research and Higher Education** (Cinzia Daraio)

15:45 **State of the art of data quality techniques** (Monica Scannapieco)

16:30 Break

16:45 -19:00 **Laboratory session**

**Tutorial on Python** (Giammarco Quaglia)

### Wednesday 16 September 2020

12:30 -14:30 **mini-course: Optimization and Machine Learning for the Imputation of Missing Interconnected Data** (Renato Bruni)

14:30 -15:00 Break

15:00 -16:00 **Laboratory Session**

**Developing Imputation techniques in Python** (Davide Aureli)

16:00 -16:15 Break

16:15 -17:15 **Why accounting systems matter for data quality** (Alessandro Avenali)

17:15 -17:30) Break

17:30 -18:10 **Seminar: Data quality relevance for assessing the impact of non-academic staff** (Joanna Wolszczak-Derlacz)

18:10 -18:20) Break

18:20 -19:00 **Laboratory Session**

**Accounting systems and data quality** (Simone Di Leo)

## Thursday 17 September 2020

15:00 -18:30 **with breaks mini-course with laboratory session:**

**Visual Analytics for Data Quality** (Marco Angelini)

18:30 -19:00 **Closing session and take away** (Cinzia Daraio)

## CONDITIONS FOR PARTICIPATION

### TARGET AUDIENCE:

RISIS Database managers, researchers (including PhD students and or post-doc) interested in data quality methods for research, education and innovation policy.

### SELECTION CRITERIA:

Priority will be given to RISIS members, and to those in charge of the RISIS facilities. The remaining places will be allocated to researchers according to their CV and interest for their research.

### FACILITIES SUPPLIED:

- Slides of the course;
- Practical exercises on the softwares that will be used during the course;
- Programs for running and implementing the proposed methods.

### ORGANISATIONAL DETAILS:

- No fees to be paid by European participants;
- To all accepted participants will be provided information about the software programs that will be used during the course.

# RISIS



RESEARCH INFRASTRUCTURE FOR SCIENCE  
AND INNOVATION POLICY STUDIES



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DEADLINE FOR REQUEST OF PARTICIPATION:

31 of July 2020

## ORGANISING COMMITTEE AND CONTACT DETAILS

Organizing committee (DIAG, Sapienza University of Rome):

- Alessandro Avenali
- Giuseppe Catalano
- Cinzia Daraio (Director of the course)

Technical support (DIAG, Sapienza University of Rome) and contact:

- Edoardo Maria Tronci – [tronci@diag.uniroma1.it](mailto:tronci@diag.uniroma1.it)