Short course on **Robust Statistics using FSDA Matlab Toolbox**

by Prof. Silvia Salini (University of Milan)

4th, 6th and 7th July 2017 – Classroom 17.1.14 (Getafe)

Short course program

July 4th

9.30 – 11.30 - Introduction to Robust Statistics, Robust Regression Estimators

11.30 – 13.30 - Laboratory Session - Robust Regression Estimators using FSDA

July 6th

9.30 – 11.30 - Introduction to Forward Search

11.30 – 13.30 - Laboratory Session – Forward Search using FSDA

July 7th

9.30 – 11.30 - Assessment: discussion of papers and case studies

Registration, certificate and ECTS recognition

The registration is free of charge, but is mandatory to sign up in advance. To register, please send an e-mail to susana.linares@uc3m.es

Participants attending to all the sessions will receive a certificate; 1ECTS will be recognized for UC3M students. The **registration deadline is the 23rd June 2017**.

Prof. Silvia Salini is PhD in Statistics (University of Milan-Bicocca). She collaborates with the developing team of the FSDA Matlab Toolbox lead by Prof. Marco Riani (University of Parma). Silvia's scientific production is mostly devoted to the application of data mining techniques and multivariate analysis to large datasets, especially in survey data; multivariate calibration; evaluation of services quality; modern analysis of customer satisfaction and scientometrics.

FSDA (Flexible Statistics and Data Analysis Toolbox) extends MATLAB and the Statistics Toolbox for the robust analysis of data sets affected by different sources of heterogeneity. It includes the main traditional robust multivariate and regression techniques (LMS, LTS, MCD, MVE, MM and S estimation) and the Forward Search approach. Tools are available for robust data transformation and robust model selection. The exploratory plots produced by the statistical functions are enriched with flexible dynamic interaction options, based on brushing, linking, annotation and filtering paradigms. The documentation is extensive and fully integrated in the classical documentation system and style of MATLAB. Documentation pages include code fragments with examples taken from the robust statistics literature. The corresponding datasets (about 50, currently) are available in textual (.txt) and binary (.mat) formats. Code for any function is open and extensible.