

## General information

An intensive set of courses providing attendees with an introduction to the theoretical foundations as well as the practical applications of some of the modern statistical analysis techniques and machine learning methods currently in use

12 courses of 15 h each are offered during 2 weeks

Each course has theoretical and practical classes with a computer programme

Students are free to choose the courses according to their interests, i.e., no restrictions besides those imposed by timetables, apply on the number or choice of courses

## Registration

40 people max per course

Courses with less than 6 people will not be open

Price per course	Before June 5	After June 5
Academia	200 €	250 €
Industry	300 €	350 €

25% discount for AEPIA and SEIO members

Tuition fees include attendance to lectures and educational materials

Fees will be independent from the number of enrolments

Application via email: [asdm@fi.upm.es](mailto:asdm@fi.upm.es)

A worldwide top 10 Maths & Stats summer school according to INOMICS (in 2015-2017)

## Organization

P. Larrañaga  
Professor at UPM

C. Bielza  
Professor at UPM

B. Mihaljević, A. Ogbechie  
PhD students



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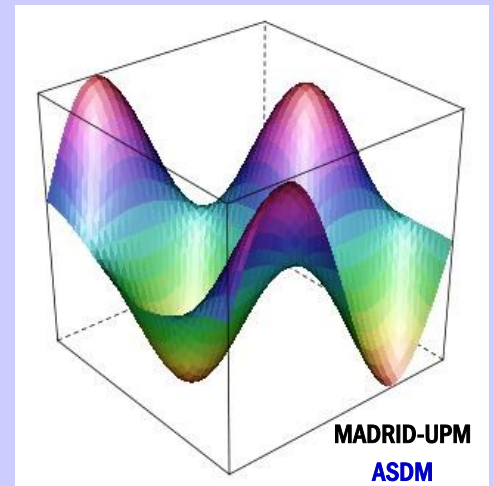


UNIÓN EUROPEA  
Fondos Estructurales



Departamento Inteligencia Artificial

# MADRID-UPM Advanced Statistics and Data Mining Summer School 2017

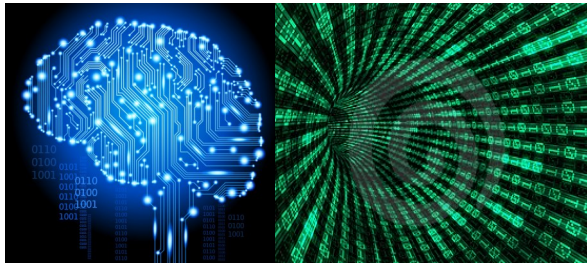


Madrid, June 26—July 7, 2017

Escuela Técnica Superior de Ingenieros Informáticos  
Universidad Politécnica de Madrid (Spain)  
<http://www.dia.fi.upm.es/ASDM>



# Programme



This summer school complements the technical background of attendees in the field of data analysis and modelling

Open to any student or professional seeking further knowledge about a field that is more and more involved in nearly all productive areas (Computer Science, Engineering, Pharmacy, Medicine, Economics, Statistics, etc.)

Also providing a set of computational tools to try the studied techniques on practical problems

Teachers will make the course content accessible to students with all backgrounds

## Week 1

June 26-30, 2017	
9:45-12:45	<ul style="list-style-type: none"><li>• C01: Bayesian Networks</li><li>• C02: Time Series</li></ul>
13:45-16:45	<ul style="list-style-type: none"><li>• C03: Supervised Pattern Recognition</li><li>• C04: Bayesian Inference</li></ul>
17:00-20:00	<ul style="list-style-type: none"><li>• C05: Neural Networks and Deep Learning</li><li>• C06: Unsupervised Pattern Recognition</li></ul>

## Week 2

July 3-7, 2017	
9:45-12:45	<ul style="list-style-type: none"><li>• C07: Statistical Inference</li><li>• C08: Big Data with Apache Spark</li></ul>
13:45-16:45	<ul style="list-style-type: none"><li>• C09: Text Mining</li><li>• C10: Feature Subset Selection</li></ul>
17:00-20:00	<ul style="list-style-type: none"><li>• C11: Support Vector Machines and Regularized Learning</li><li>• C12: Hidden Markov Models</li></ul>

## Instructors

- C01:** C. Bielza, P. Larrañaga, B. Mihaljević (UPM)  
**C02:** A. Justel (UAM), L. Cayuela (URJC), A. Alonso (UC3M)  
**C03:** P. Larrañaga, C. Bielza (UPM)  
**C04:** M. Wiper, C. Ausín (UC3M)  
**C05:** J. Dorronsoro, A. Barbero, A. Suárez (UAM)  
**C06:** A. Otero (CEU-San Pablo)  
**C07:** R. Mínguez (UCLM)  
**C08:** F. Ortega (URJC)  
**C09:** F. Leitner (Leitner Catalytics S.L.)  
**C10:** B. Mihaljević, P. Larrañaga, C. Bielza (UPM)  
**C11:** J. Dorronsoro, A. Barbero (UAM), C. Alaíz (KU Leuven)  
**C12:** A. Álvarez (UPM)