

This course is targeted at specialists and students at the different academic levels (master, graduate students, PhD candidates, postdoctoral students and senior scientists) interested in current research trends regarding compute intensive data analytics techniques over massive amounts of data, making special emphasis on Deep Learning, over High Performance Computing (HPC) and hybrid Cloud Platforms.

The first half of the course is devoted to the study and analysis of different use cases in different areas (such as Astrophysics and Particle Physics, Bioinformatics and Biodiversity). Over these sessions an in depth analysis and consolidation of technical requirements will be performed, with the objective of understanding the present and future challenges that are to be tackled in these scientific areas over the next years.

The last part of the course will consist on the description of a practical deployment and implementation of the tools required to perform the aforementioned massive data processing on top of a cloud computing environment. Also, the integration of existing HPC systems (like supercomputers) in cloud environments will be tackled. This integration can be considered as a new way of hybrid cloud, making it possible to scale up the resource limitations of a given private cloud over a specialized provider. All this discussion will be framed in the context of the European Open Science Cloud and its framework, being focused on the researchers requirements and the different computing platforms present at both the national and European level.

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INFORMACIÓN GENERAL

→ **Hasta el 15 de junio de 2018**

Santander

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Avda. de los Castros, 42
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Madrid

C/ Isaac Peral, 23
28040 Madrid
Tel. 91 592 06 31 / 91 592 06 33
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Horario

de 9.00 a 14.00 h
de 16.00 a 18.00 h (excepto viernes)

PLAZOS

→ **Plazo de solicitud de becas**

Hasta el día 28 de mayo, para los cursos que comiencen antes del 6 de julio de 2018

Hasta el día 15 de junio, para los cursos que comiencen a partir del día 9 de julio de 2018



→ **A partir del 18 de junio de 2018**

Santander

Palacio de la Magdalena
39005 Santander
Tel. 942 29 88 00 / 942 29 88 10

Horario

de 9.00 a 14.00 h
de 16.00 a 18.00 h (excepto viernes)

→ **Apertura de matrícula**

Desde el 8 de mayo de 2018
(Plazas limitadas)

→ Código 63ZH | Tarifa: C | ECTS: 1

Portada basada en el original de Hugo Fontela para la UIMP, 2018

041-18-002-0

UIMP Universidad Internacional
Menéndez Pelayo

Santander 2018

Seminario

Del 18 a 22 de junio



New challenges in Data Science: Big Data and Deep Learning on Data Clouds

Jesús Marco de Lucas

www.uimp.es

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SEMINARIO

New challenges in Data Science: Big Data and Deep Learning on Data Clouds

Dirección

Jesús Marco de Lucas

Profesor Investigación, CSIC

Secretaría

Álvaro López

Investigador postdoctoral, CSIC

Del 18 al 22 de junio de 2018

Lunes 18

10.00 h | Understanding Researchers Requirements: a Data Science perspective

[Fernando Aguilar](#)

Postdoctoral researcher, Spanish National Research Council, CSIC

12.00 h | Extreme Data Cloud requirements in Astrophysics and High Energy

[Antonio Falabella](#)

Postdoctoral Research Fellow, Italian Institute for Nuclear Physics (INFN)-CNAF Department

[Daniele Cesini](#)

Postdoctoral researcher, Italian Institute for nuclear Physics (INFN)-CNAF Department

[Frederic Gillardo](#)

CNRS

15.30 h | XFEL Data Ingesting and Processing

[Michael Schuh](#)

Researcher, Deutsches Elektron-Synchrotron (DESY)

Martes 19

10.00 h | Extreme Data Cloud challenges in Ecosystems and Biodiversity

[Francisco Pando de la Hoz](#)

Researcher, Real Jardín Botánico, CSIC

12.00 h | Extreme Data Cloud challenges in Clinical Research

[Steve Canham](#)

European Clinical Research Infrastructure Network, ECRIN

15.30 h | Wrap-up: towards a common approach on challenges and requirements on Extreme Data Cloud

[Daniele Cesini](#)

[Alessandro Costantini](#)

Postdoctoral researcher, Italian Institute for Nuclear Physics (INFN)-CNAF Department

Miércoles 20

10.00 h | Understanding stakeholders and their portfolio of services in the European Open Science Cloud

[Giacinto Donvito](#)

Technologist at Italian Institute for Nuclear Physics (INFN) - Bari Department

[Isabel Campos](#)

Researcher, Spanish National Research Council, CSIC

12.00 h | Ensuring software quality in federated environments

[Pablo Orviz](#)

Researcher, Spanish National Research Council, CSIC

15.30 h | Matching research requirements and challenges with Cloud platform functionalities

[Wolfgang zu Castell](#)

Head of the Scientific Computing Research Unit, Institute of Computational Biology, HMGU

Jueves 21

10.00 h | Deploying advanced services on Hybrid Data Clouds

[Álvaro López](#)

12.00 h | Building and deploying complex applications in Hybrid Clouds

[Andy S. Alic](#)

Researcher, Universitat Politècnica de Valencia (UPV)

15.30 h | Integration of HPC resources and techniques

[Jorge Gomes](#)

Portuguese Laboratory of Instrumentation and Experimental

Particles Physics (LIP)

Viernes 22

09.30 h | Security, Privacy and Ethics issues

[Steve Canham](#)

11.30 h | What next? panorama up to 2020

[Jesús Marco de Lucas](#)