



Contribution ID: 28

Type: **not specified**

BIG DATA & FUNDAMENTAL RESEARCH: CHALLENGES & PERSPECTIVES

Wednesday 22 May 2019 08:00 (1h 50m)

The lecture will introduce different fundamental research challenges where Big Data techniques are key, how they are being addressed, and the new ideas being explored at different levels (infrastructure, cloud-based platforms, data science solutions).

A general framework developed in the framework of EU initiatives will be presented and used as a guide to understand the roles of the various stakeholders. It will be translated into specific examples in different areas (physics, biodiversity, earth observation).

An approach to the implementation of the full data life cycle in an open science framework will be introduced, describing the importance of data “fairness” for reuse, and the need for a cloud platform supporting this activity.

Finally, the specific application of deep learning techniques to big data to derive new ideas in fundamental research will be discussed.

Prof. Jesus Marco coordinates the research line on Advanced Computing and e-Science at IFCA, and serves currently as vice president for research at CSIC (National Research Council in Spain). PhD in experimental HEP working in DELPHI experiment at CERN, he actively participated in the search for the Higgs boson at LEP. He has contributed to several EU projects on distributed computing infrastructure, and coordinates the DEEP Hybrid DataCloud H2020 project.

Presenter: Prof. MARCO DE LUCAS, Jesus (Universidad de Cantabria, IFCA, and CSIC (ES))

Session Classification: PLENARY MORNING SESSION