Big Data Treatment for Material Science

(2 CFU)

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COURSE OBJECTIVES

- **Knowledge**: Conceive the concept of "Big-data". Understand the problems arising from their management in the scientific field, with particular reference to the science of materials;
- **Applying knowledge**: Ability to manage "Big-data". Design and implement a suitable data treatment plan;
- **Making judgements**: Critical analysis and evaluation of data processing methodologies in specific case studies;
- **Communication skills**: Reporting in think-pair-share situations, in plenary communication and in brainstorming conditions.

PROGRAMME OF THE COURSE

- Introduction to Big-Data treatment
- Open source tools for Data Scientists
- Principal Component Analysis
- Design of Experiments