



## ANNUNCIO DI SEMINARIO

### “Visual storytelling and data visualization in numerical simulations”

**Dr. Joel Guerrero**  
DICCA, Università di Genova

Venerdì 11 Dicembre, 2015 – ore 14:00  
Scuola Politecnica, Villa Cambiaso  
Aula A11 (presso il DICCA)

#### Abstract

Data visualization is the presentation of data in a pictorial or graphical format in order to amplify cognition. Visual storytelling is about finding a story in our data, presenting and communicating that story, making it understandable and insightful to any audience. In today's world, an incredible amount of data is generated, collected, analyzed and used to make informed decisions, uncover patterns, find anomalies or predict future outcomes, and numerical simulations are not an exception. Thanks to the technological advances in hardware and software, we can obtain a large amount of data in a very affordable time span; numerical simulations are no more “*run a few simulations and wait a long time*”. We should be ready to analyze and communicate the data generated from numerical simulations (or any other field) in a way that yields insight and understanding. We should also support data manipulation, filtering, cross-relating and visual thinking by using interactive systems. In this presentation, we will introduce a web-based data visualization and analysis toolkit, aimed at helping people to gather, understand and communicate data through the use of interactive systems for data analytics and exploratory data analysis. The toolkit incorporates many charts and plots that let the user visually explore the data in an interactive way, and makes use of descriptive statistics and machine learning tools for data analytics. We will demonstrate how the framework works by using data sets obtained from numerical simulations and data scrapped from the web. The framework is based in javascript, D3.js, html5, python and R and can be run from any device (pc, tablet, smartphone).

Il seminario sarà tenuto in lingua inglese. Per informazioni  
contattare il Prof. Alessandro Bottaro, [alessandro.bottaro@unige.it](mailto:alessandro.bottaro@unige.it)