EP-IT Data science seminars

SPEAKER: Elena Cuoco

TITLE: **Machine learning applications in Gravitational Wave research to classify transient signals**

DATE: 13 Feb 2019, 11:00

PLACE: 503-1-001 - Council Chamber

ABSTRACT

Most of the data collected by Gravitational Wave (GW) interferometers are essentially background noise containing many noise transient signals, which has to be analyzed in a fast and efficient way to increase the detection confidence and to obtain information about likely noise sources. Characterizing the noise transient signals (glitches) is an important task to reduce the impact of transient noise on the detectors. Inspecting glitches manually is a time-consuming and error-prone task and the increase of sensitivity in advanced detectors will lead to more classes of glitches. The use of machine learning looks a promising way to tackle the classification of glitches. We present classification strategy based on image or time-series data set.

Organised by: M. Girone, M. Elsing, L. Moneta, M. Pierini..........
Coffee will be served at 10h30