Contribution ID: **33**   Type: **not specified**

Noise Rejection Method Using Spherical Harmonic Decomposition

Monday 8 April 2019 15:00 (15 minutes)

The rapid analysis of gravitational-wave data for burst-like signals is not trivial for many reasons, such as the non-Gaussian non-stationary nature of the background noise in the detectors and the lack of information about potential sources such as exhaustive waveform models or sky position. One active research area is based on the use of X-SphRad (X-Pipeline Spherical Radiometer), a software package designed for performing autonomous searches for un-modeled gravitational-wave bursts. X-SphRad has an approach based on spherical radiometry, that transforms time series data streams into the spherical harmonic domain. We will describe the harmonic coefficients potential in discriminating gravitational wave candidates from background noise, and overview a noise rejection method. We are testing this method on the data given by the LIGO-VIRGO collaboration.

Presenter: MASSERA, Elena

Session Classification: Parallel stream 2