Contribution ID: **22**                                    Type: **not specified**

# Gravitational Waves and Machine Learning

*Friday, 8 April 2022 12:30 (15 minutes)*

The LIGO-Virgo collaboration has detected dozens of gravitational wave signals so far, and will do so at an increasing rate in the following years with detector
upgrades. These signals are extremely faint and arrive to us buried in noise; measuring and analyzing them is a hard computational challenge.
I will discuss how machine learning can help in this task, mostly focusing on the theoretical/modelling side: a neural network can learn a computationally expensive function and reproduce its results "by memory", speeding up Bayesian
inference.

**Presenter:** TISSINO, Jacopo (GSSI)

**Session Classification:** Astrophysics and Cosmology