

SciNeGHE 2016 High-energy gamma-ray experiments at the dawn of gravitational wave astronomy



Contribution ID: 22

Type: **Talk**

AGILE observations of Gravitational Wave events

Tuesday, 18 October 2016 10:20 (25 minutes)

We will present the AGILE capabilities to detect the electromagnetic counterparts of Gravitational Wave (GW) sources recently discovered by LIGO. The follow-up of the events discovered so far and the perspective for future discoveries will be discussed.

The combination of Tracker, miniCalorimeter, Anti Coincidence as a gamma-ray imager, makes the AGILE-GRID an optimal instrument for follow-up observations of large localization regions of GW sources. This can be achieved thanks to the following characteristics: 1) a very large FoV (2.5 sr), 2) an accessible sky of about 80% every 7 minutes with a sensitivity of 10^{-8} erg cm⁻² s⁻¹ at $E > 30$ MeV on ~ 100 s, 3) sub-millisecond trigger for very fast events detectable by MCAL in the range 0.4-100 MeV.

In addition to them, the improved localization capability (2-3 arcmin) expected to be provided by the reactivation of the hard X-ray monitor, SuperAGILE.

Primary author: Dr DONNARUMMA, Immacolata (INAF-IAPS)

Presenter: Dr DONNARUMMA, Immacolata (INAF-IAPS)

Session Classification: Session Ia: High-Energy experiments: reports and connections with Gravitational Waves

Track Classification: High-energy experiments: results and connections with Gravitational Waves