

Results of the follow-up of external triggers with KM3NeT

Tuesday, 18 June 2024 17:30 (2 hours)

The strength of multi-messenger astronomy allows to deeply investigate the Universe by combining observations with diverse messengers, such as photons, gravitational waves, high-energy charged particles and neutrinos. The chance of detecting new astrophysical sources is increased by a coincident detection, which motivates several observatories to send external alerts and perform follow-ups.

The deep-sea KM3NeT Cherenkov telescope is currently being constructed in the Mediterranean sea with ORCA off-shore Toulon (France), and ARCA off-shore Capo Passero in Sicily (Italy). Being sensitive to an extended neutrino energy range (from MeV to PeV energies), KM3NeT is playing an active role in the context of multimessenger astronomy.

This contribution presents the latest results of the real-time search (follow-up) for neutrinos in coincidence with astrophysical sources performed with the real-time multi-messenger analysis framework.

Poster prize

Yes

Given name

Ilaria

Surname

Del Rosso

First affiliation

INFN - Sezione di Bologna

Second affiliation

Università di Bologna

Institutional email

delrosso@bo.infn.it

Gender

Female

Collaboration (if any)

KM3NeT

Primary author: DEL ROSSO, Ilaria (Istituto Nazionale di Fisica Nucleare)

Co-authors: VEUTRO, Alessandro (Istituto Nazionale di Fisica Nucleare); LE GUILRIEC, Emmanuel (Aix Marseille Univ, CNRS/IN2P3, CPPM, Marseille, France); FILIPPINI, Francesco (Istituto Nazionale di Fisica Nucleare); ILLUMINATI, Giulia (Istituto Nazionale di Fisica Nucleare); VANNOYE, Godefroy (Aix Marseille Univ, CNRS/IN2P3, CPPM); PALACIOS GONZALEZ, Juan; J. DE FAVEREAU DE JENERET, Jérôme; MASTRODICASA, Massimo (ROMA1); LAMOUREUX, Mathieu; CELLI, Silvia (Istituto Nazionale di Fisica Nucleare); LE STUM, Sébastien; CECCHINI, Vincent; DORNIC, damien (cnrs)

Presenter: DEL ROSSO, Ilaria (Istituto Nazionale di Fisica Nucleare)

Session Classification: Poster session and reception 1

Track Classification: Astrophysical neutrinos