

## **Multi-messenger NuEM Alerts with AMON by Hugo Ayala\***

We present a summary of the neutrino+gamma-ray multi-messenger coincidence channel developed by the Astrophysical Multimessenger Observatory Network. The coincidence analyses take advantage of sub-threshold events, i.e. events that by themselves are not significant in the individual detectors. This channel is running in near real-time and distributing alerts through GCN. The main purpose of this channel is to search for neutrino sources with the help of gamma-ray data.

The NuEM channel is currently composed of 4 analyses combining data from IceCube, ANTARES, HAWC and Fermi-LAT. The analyses HAWC+IceCube and Fermi-LAT+ANTARES are online and together have produced 8 alerts since 2019. Follow-up observations of these alerts have been performed. However no counterpart has yet been found.

\*On behalf of the AMON Group, the HAWC Collaboration, the IceCube Collaboration and the Antares Collaboration