



Contribution ID: 24

Type: **Oral**

# AMON Multimessenger Alerts: Past and Future

*Tuesday, September 18, 2018 2:45 PM (30 minutes)*

The Astrophysical Multimessenger Observatory Network (AMON) was founded to tie the world's high-energy and multimessenger observatories into a single network, with the purpose to discover multimessenger sources, to exploit these sources for purposes of astrophysics, fundamental physics, and cosmology, and to explore project datasets for evidence of multimessenger source populations. Successes of AMON to date include the GCN AMON\_ICECUBE prompt alerts for likely-cosmic neutrinos, multiple follow-up campaigns for likely-cosmic neutrinos including the IceCube-170922A event, and several archival searches for transient and flaring gamma-ray + neutrino and neutrino + cosmic ray multimessenger sources. Given the new dawn of multimessenger astronomy recently realized with the GW 170817A / GRB 170817A and IceCube-170922A events, we are planning to commission multiple multimessenger alert streams, including gravitational wave + gamma-ray and high energy neutrino + gamma-ray coincidence alerts, over the course of the next year. I will describe some past AMON analyses and review our plans for high-energy and multimessenger AMON alerts during what promises to be a very exciting year for multimessenger astrophysics. AMON welcomes expressions of interest from prospective triggering facilities and follow-up partners.

**Author:** AYALA, Hugo (Pennsylvania State University)

**Presenter:** AYALA, Hugo (Pennsylvania State University)

**Session Classification:** Multi-Messenger