Contribution ID: **97** Type: **Oral**

Seeking the sources of high-energy neutrinos with Swift

Wednesday 9 August 2017 16:45 (15 minutes)

IceCube has reported discovery of the first high-energy astrophysical neutrino candidates, however the nature of the sources responsible for these neutrinos - potentially also the sources of the highest-energy cosmic rays - is still unknown and no high-confidence electromagnetic counterparts to any of the neutrino events have yet been detected. If the sources producing these highest-energy cosmic neutrinos are transient, they may be identifiable in rapid-response observations at Swift. The possibility of discovering multimessenger transient sources in this fashion is one of the main motivations for the Astrophysical Multimessenger Observatory Network (AMON). I will present the results of the first Swift satellite follow-up campaigns seeking to identify transient or variable X-ray or UV/optical sources that might be associated with the high-energy neutrinos detected by the IceCube Neutrino Observatory. Real-time public alerts providing coordinates and arrival times of high-energy neutrino events have been provided by IceCube and distributed via AMON and Gamma-Ray Coordinates Network (GCN) since April 2016.

Primary author: KEIVANI, Azadeh

Presenter: KEIVANI, Azadeh

Session Classification: Multi-messenger

Track Classification: Multi-messenger (incl. gravitational waves) and nuclear astrophysics