



PhD Summer School on Neutrinos  
**Here, There & Everywhere**

July 11-15, 2022  
Niels Bohr Institute, Copenhagen

Contribution ID: 84

Type: **Oral**

## **Rapid Response to Extraordinary Events: the Gamma-Ray Follow Up (GFU) platform for IceCube**

*Monday, 11 July 2022 14:36 (12 minutes)*

The IceCube discovery of an astrophysical flux of high-energy neutrinos is a milestone in multi-messenger astronomy. Time-integrated searches for point-like neutrino sources have failed so far because of large backgrounds and weak signals. The IceCube capability of observing the sky with a full duty cycle enables the search for transient neutrino emissions and provides alerts to the community to encourage searches for electromagnetic counterpart of rapidly fading sources.

In this talk, we will present the Gamma-Ray Follow Up platform, created to identify good muon neutrino candidates used to generate and send alerts to the astrophysical community. Results will be presented of the most significant neutrino flares recorded so far.

**Primary authors:** BOSCOLO MENEGUOLO, Caterina; BERNARDINI, Elisa (University of Padova, IceCube)

**Co-authors:** SATALECKA, Konstancja; MANAO, Elena (University of Padova)

**Presenter:** BOSCOLO MENEGUOLO, Caterina

**Session Classification:** Student Talks