

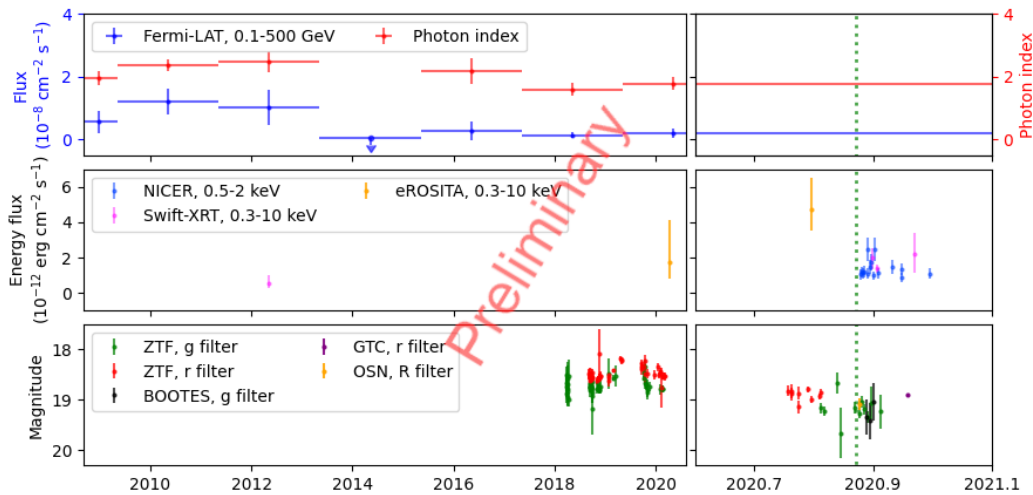
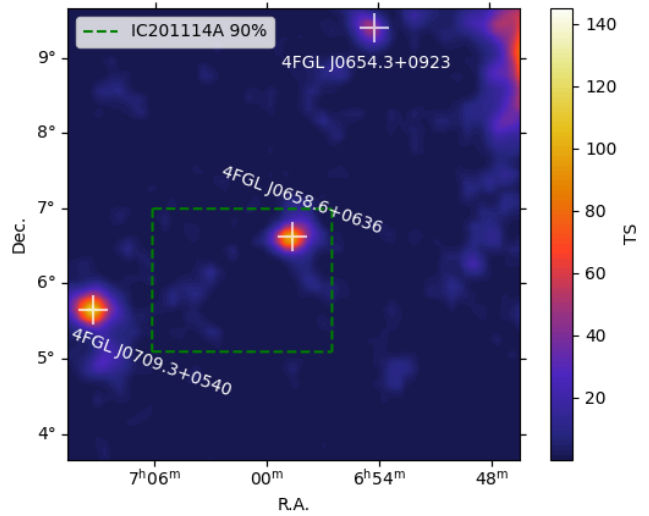
Multi-Messenger observations of the γ -ray blazar 4FGL J0658.6 +0636 consistent with an IceCube high-energy neutrino

Raniere de Menezes and collaborators, on behalf of the Fermi-LAT, H.E.S.S., MAGIC, VERITAS, ZTF and TELAMON Collaboration

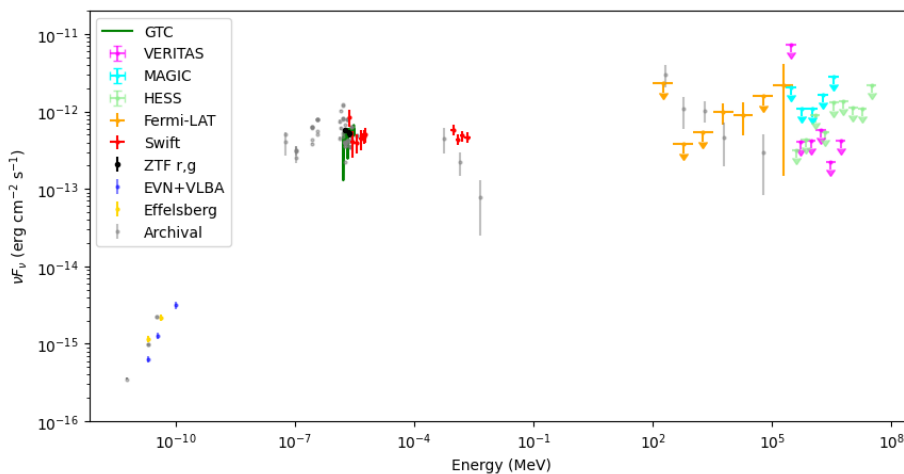
IceCube-201114A is a gold neutrino event positionally consistent with the γ -ray BL Lac NVSS J065844 +063711

- Neutrino energy proxy = 214 TeV
- Astrophysical Signalness = 0.56

The figure on the right shows the Fermi-LAT TS map for a region of interest centered on NVSS J065844 +063711 (4FGL J0658.6 +0636).



The neutrino arrived in November 2020 (green dashed line in the figure above) when NVSS J065844+063711 is in a quiescent state in optical, X-ray, and γ -ray band.



We observe a spectral hardening in this source in the last 4 years (colored data points in the figure above) if compared with archival data collected prior to 2017 (grey points).