



Contribution ID: 70

Type: **Parallel Talk**

Ultrahigh-energy cosmic-ray induced gamma-ray and neutrino fluxes from blazars

Monday 8 August 2022 14:40 (20 minutes)

Blazars are potential candidates of cosmic-ray acceleration up to ultrahigh energies (> 1 EeV). For an efficient cosmic-ray injection from blazars, $\pi\pi$ collisions with the extragalactic background light and cosmic microwave background can produce gamma-ray and neutrino fluxes in the TeV and PeV-EeV energies, respectively. Such a line-of-sight cosmogenic gamma-ray flux can contribute to the spectra measured by ground-based air-Cherenkov telescopes from individual blazars, while PeV-EeV neutrinos form a “guaranteed” component in addition to any sub-PeV neutrinos produced in the blazar jet and as detected by IceCube. We calculate line-of-sight cosmogenic fluxes from the blazars TXS 0506+056, PKS 1502+106 and GB6 J1040+0617, which have been associated with IceCube neutrino events. We discuss conditions required for detection of these fluxes by current and upcoming gamma-ray and neutrino telescopes.

Collaboration name

Author: RAZZAQUE, Soebur**Presenter:** RAZZAQUE, Soebur**Session Classification:** Neutrinos**Track Classification:** Neutrinos