Contribution ID: **4** Type: **not specified**

Investigation of the detectability of gamma-ray bright GRBs with future neutrino observatories (12+3)

Monday 26 April 2021 19:45 (15 minutes)

Gamma-ray bursts are thought to be accelerators of cosmic rays and a source of high-energy astrophysical neutrinos. Nevertheless, none of previous GRBs researches have shown a correlation between particular events and high-energy neutrinos. In the light of the first detection of TeV gamma-ray emission from GRB190114C, our goal is to explore the possibility of detecting the neutrino fluxes coming from similar events based on the observed gamma-ray fluxes.
We present a calculation of neutrino fluxes from GRB190114C for different neutrino telescopes, and we calculate the total integrated emission expected from similar sources.

Author: Ms OSTAPENKO, Oleksandra (Taras Shevchenko National University of Kyiv, Kyiv, Ukraine)

Co-authors: YANEZ GARZA, Juan Pablo (Faculty of Science, University of Alberta); PARK, Nahee (Department of Physics, Queen's University)

Presenter: Ms OSTAPENKO, Oleksandra (Taras Shevchenko National University of Kyiv, Kyiv, Ukraine)

Session Classification: High energy astrophysics