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Visualization of Multimessenger Astronomy Data for Baikal-GVD Neutrino Telescope.

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Modern astronomy aims to study the astrophysical objects with the various types of signals such as photons, neutrinos, cosmic rays and gravitational waves. To achieve the goals of the multi-messenger astronomy, experiments should exchange their data, which can be done with the alert messages.

Alert contains essential information about the detected event: sky coordinates, date, time of the detection, number of false events per year, energy, etc. The alert messages are distributed via dedicated international networks, such as the Global Coordinates Network (GCN), facilitating the rapid follow up of transient astrophysical phenomena

The Baikal-GVD alert system receives external alerts automatically and applies different methods to search for signal coincidences. For better understanding of the Baikal-GVD alert system workflow and researching of the astrophysical neutrino sources the alert visualization is necessary.

This work deals with the approaches that are used within the coincidence search process and the visualization of the alerts: Baikal-GVD alerts and external messages from other experiments like the IceCube neutrino telescope, Fermi gamma-ray telescope and LIGO/VIRGO/KAGRA gravitational observatories.

Primary authors: KULIKOV, Aleksey (Irkutsk State University); SEMENIUK, Anastasiia (Irkutsk State University); Ms PEREVALOVA, Irina (Irkutsk State University); SUVOROVA, Olga (Institute for Nuclear Research of the Russian Academy of Sciences); Mr ELZHOV, Timur (JINR); DIK, Viktoriya (Joint Institute for Nuclear Research)

Presenter: SEMENIUK, Anastasiia (Irkutsk State University)

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