Seventeenth Marcel Grossmann Meeting



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Searches for Diffuse and Galactic neutrino emissions with ANTARES telescope

Thursday, 11 July 2024 16:00 (25 minutes)

The ANTARES neutrino telescope has collected data from February 2007 until its shutdown in February 2022. The full ANTARES dataset, including both track-like and shower-like events, has been used to search for both a diffuse, and a galactic neutrino flux. The latter being either evaluated agnostically through the contribution of the Galactic ridge with a single power law, or by evaluating different models of galactic emission. This talk will review the results of these analyses, which revolve around two kinds of methods. First, a Bayesian counting approach for both the diffuse and galactic ridge analysis is presented. Second, a frequentist likelihood analysis is applied for phenomenological models such as KRA- γ , CRINGE or Fermi-LAT $_0$, but also toy-models modelling the Galactic Ridge analysis

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