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High-energy neutrino production in active galactic nuclei

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Abstract content

Recent astronomical observations reveal that Active Galactic Nuclei are sources of high-energy radiation. For example, the Fermi-Lat and Hess telescopes have detected gamma-ray emissions from the cores of Centaurus A and M87. Even more, the Pierre Auger observatory has found a correlation of ultra-high energy cosmic ray events with the position of AGN's, such as Centaurus A. In this way, according to particle physics, a flux of high-energy neutrinos should be expected from the interactions of cosmic and gamma-rays with the ambient matter and radiation of the source. In this work, estimations of the neutrino flux from Centaurus A and M87 arising in interactions of the gamma radiation with the gas and dust of the sources will be presented.

Summary

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