

High-Energy Cosmogenic Neutrinos

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Cosmic ray (CR) interactions with the cosmic radiation background are a guaranteed source of high-energy neutrinos. The most optimistic scenario assumes the dominance of CR protons at ultra-high energies (UHE) that rapidly interact with the cosmic microwave background above the Greisen-Zatsepin-Kuzmin (GZK) cutoff. The GZK neutrino prediction of this scenario is testable with present and near-future neutrino observatories. On the other hand, if heavy nuclei dominate the UHE CR spectrum the predictions of GZK neutrinos become smaller by orders of magnitude. I will review the predictions of different UHE CR models and summarize the present status of the GZK neutrino searches.

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