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Ultrahigh energy neutrinos at the Pierre Auger Observatory

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The observation of ultrahigh energy neutrinos has become a priority in experimental Astroparticle Physics. They can be detected with a variety of techniques. In particular,
neutrinos can interact in the atmosphere or in the Earth's crust, producing air showers
that can be observed with arrays of detectors at the ground. With the Surface Detector of the Pierre Auger Observatory we are sensitive to neutrinos in the sub-EeV energy range and
above. A search for UHE neutrinos has yielded no candidates and a limit to the diffuse flux of ultrahigh energy neutrinos has been placed that challenges the Waxman-Bahcall
bound predictions, and constrains their production in interactions of ultrahigh energy cosmic rays with the Cosmic Microwave Background radiation.

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