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Latest results from the searches of ultra-high energy neutrinos at the Pierre Auger Observatory

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Besides detecting ultra-high-energy (UHE) cosmic rays, the Pierre Auger Observatory offers a remarkable exposure to neutrinos above 10^{17} eV. Since the beginning of data taking, the Observatory has been involved in setting up some of the most stringent upper limits to the neutrino flux in the UHE range. During this time it has also been involved in various multi-messenger follow up searches of transient events.

This talk aims to give an overview of the ongoing work regarding the search for UHE neutrinos at the Pierre Auger Observatory. Updated upper limits to the diffuse flux of UHE neutrinos will be shown. Additionally, the latest results from UHE neutrino searches from binary black hole mergers will be presented. Furthermore, the capabilities of Pierre Auger Observatory in constraining Beyond Standard Model scenarios will be discussed.

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