

## Multi-Messenger Physics with the Pierre Auger Observatory

*Tuesday 11 January 2022 09:00 (30 minutes)*

In this talk, we will review multi-messenger capabilities of the Pierre Auger Observatory involving searches for high energy neutrinos and photons from transient events as well as searches for temporal and/or directional correlations between different messengers including UHECR. Upper bounds on the flux of up-going air showers - of the type that was reported by ANITA - will be presented and used to constrain BSM physics. Finally, we will discuss future prospects, including pushing down the neutrino detection threshold auf the Auger Observatory.

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**Session Classification:** High energy cosmic rays II