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Presentation ”Simulating cosmic ray air shower radio emission for the Askaryan Radio Array”

Friday 24 May 2024 16:30 (30 minutes)

Abstract: “The flux of cosmic neutrinos drops rapidly towards the highest energies. Therefore, huge volumes of dense, signal transparent, material have to be probed to allow for their detection. The Askaryan Radio Array collaboration aims to probe this flux through the radio signal from the in-ice particle cascade induced upon the interaction of a cosmic neutrino. Recently, it was shown cosmic rays can induce a signal with very similar properties to a neutrino-induced cascade. Therefore, this signal not only poses a background to the neutrino search, but if understood properly allows for the in-situ calibration of the detector.”

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