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Calibrating IceCube track reconstructions by using DM-Ice coincidence events using 2012-2020 data

Wednesday, 7 April 2021 10:00 (20 minutes)

DMIce-17 comprises of two 8.5kg NaI(Tl) scintillator crystals located beneath the IceCube array. We demonstrate that it is possible to distinguish muons detected in DMIce-17 from background, and then use this to determine the coincidence rate between high energy tracks measured in IceCube and said muons for data covering 2012-2020. Finally, we discuss how this may be used to improve the track reconstruction of IceCube.

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