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IceCube-DeepCore-PINGU

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IceCube and its low energy extension DeepCore, located at South Pole Station Antarctica, has now acquired nearly 5 years of data in the final detector configuration. In that time, IceCube has detected the Universe's highest energy neutrinos to date, and DeepCore has achieved measurements of atmospheric neutrino oscillations near 25 GeV that are competitive with dedicated experiments at lower energies. Building on this success of deploying massive Cherenkov neutrino detectors in a natural medium, IceCube is now preparing for next generation detector arrays to extend its reach at both the high and low energy range of the current experiment. The Precision IceCube Next Generation Upgrade (PINGU) is the proposed in-fill to the IceCube array that will further lower the neutrino energy detection threshold, making possible enhanced atmospheric neutrino oscillation measurements and sensitivity to indirect dark matter searches. This presentation will briefly cover the most recent results from IceCube and DeepCore, and will discuss the status of the PINGU project.

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