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## Status and prospects of IceCube neutrino telescope

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The IceCube neutrino observatory, under construction at the South Pole, consists of three sub-detectors: a 3-dimensional array of digital optical modules deployed deep in the ice, the AMANDA neutrino telescope and the surface array IceTop. I will summarize results from searches for cosmic neutrinos with the AMANDA telescope and review expected sensitivities for IceCube at various installation phases. Reliability and robustness of installation at the South Pole has been demonstrated along the past four construction seasons. On the base of a consolidated confidence in operations at the South Pole, the extension of IceCube operations at the extreme ends (low and high) of the energetic region can be accomplished. I will describe the IceCube Deep Core project that will extend the low energy response of IceCube and a study of optimal positioning of outer most strings for a better sensitivity at higher energies.

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