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Operation and First Data of DM-Ice17 at the South Pole[1]
MATTHEW KAUER, University of Wisconsin, Madison, DM-ICE COLLABORATION — DM-Ice17 is a set of two NaI(Tl) detectors with a combined mass of 17 kg located at a depth of 2450 m in the Antarctic ice at the South Pole. In this experiment the signature for WIMP dark matter is an annual modulation in the nuclear recoil signal events. DM-Ice17 is a prototype detector for a first direct search for dark matter in the Southern Hemisphere. Seasonal effects have a reversed phase relative to the Northern Hemisphere and together provide a complimentary understanding of those systematics. Furthermore, the South Pole ice provides an extremely stable environment year around. In this talk we present data from the operation of the DM-Ice17 experiment since January 2011 and discuss the stability, performance, and expected WIMP sensitivity.

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