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A Measurement of Underground Cosmic Neutron Fluxes with SciBath REMINGTON THORNTON, Indiana University, SCIBATH COLLABO-RATION — Designed as a neutrino prototype detector, SciBath is an 80 liter liquid scintillator detector with a three dimensional grid of 768 wavelength-shifting fibers and is sensitive to neutrons above 10 MeV. A data run at Fermilab near the MI-NOS detector (100 m underground) in fall of 2011 was taken to demonstrate neutral particle detection. An overview of the detector performance during this run, the measured cosmic neutron flux, and comparisons to predictions will be presented.

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