

Abstract Submitted
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First neutron beta-decay results from the UCNA experiment

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— The UCNA Collaboration will extract a precise value (goal of 0.2%) for the neutron beta-asymmetry from measurements of the angular correlation between the neutron spin and the direction of emission of the decay electron in polarized ultracold neutron decay. Ultracold neutrons polarized via transport through a 7.0-Tesla field are directed into the center of our electron spectrometer, consisting of a 10-cm diameter, 3-m long decay trap situated within a highly-uniform 1.0-Tesla solenoidal field. The spiraling decay electrons are detected at both ends of the spectrometer in identical multi-wire proportional chamber and scintillator detector arrays. First results from neutron beta-decay commissioning runs conducted during late-2006, along with results from calibration studies of the electron spectrometer, will be presented.

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