Abstract Submitted
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Measuring the beta-neutrino angular correlation in the ^{6}He decay[1] YELENA BAGDASAROVA, ALEJANDRO GARICIA, RAN HONG, MATTHEW STERNBERG, DEREK STORM, ERIK SWANSON, FREDERIK WAUTERS, DAVID ZUMWALT, University of Washington, ARNAUD LEREDDE, KEVIN BAILEY, PETER MUELLER, THOMAS P. O'CONNOR, Argonne National Lab., XAVIER FLECHARD, ETIENNE LIENARD, LPC-Caen, OSCAR NAVILIAT-CUNCIC, Michigan State University — We have set up an experiment to determine the electron-antineutrino correlation from ^{6}He decay with the aim of searching for tensor currents in the electroweak interaction, which would constitute physics beyond the Standard Model. Our setup consists of a ^{6}He production target connected to a laser cooling and magneto-optical trapping system which confines the atoms in a small region surrounded by detectors. The detection system entails a combination of a multiwire proportional chamber and scintillator (for the beta) plus an electric field guide and a microchannel plate detector (for the Li recoil ions). I will give an overview of the setup, a summary of expected systematic uncertainties, and the current status of the experiment.

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Yelena Bagdasarova
University of Washington

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