

Abstract Submitted  
for the HAW09 Meeting of  
The American Physical Society

**Status of the EXO-200 Experiment** LIANG YANG, SLAC National Accelerator Laboratory, EXO COLLABORATION — The Enriched Xenon Observatory (EXO) collaboration aims to perform the most sensitive search of the neutrinoless double beta decay process using Xe-136. The first phase of the experiment, EXO-200, uses 200 kg of liquid xenon with 80% enrichment in Xe-136. The double beta decay of xenon is detected in an ultra-low background time projection chamber (TPC) by collecting both the scintillation light and the ionization charge. EXO-200 is currently undergoing final assembly and commissioning at the Waste Isolation Pilot Plant (WIPP) in New Mexico and Stanford in California, and will begin data taking at the end of 2009. With two years of running, EXO-200 is expected to be sensitive to half-lives of less than  $6.4 \times 10^{25}$  years for neutrinoless double beta decay.

Liang Yang  
SLAC National Accelerator Laboratory

Date submitted: 30 Jun 2009

Electronic form version 1.4