

Abstract Submitted
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Performance of the LENS Detector Architecture¹ BERTIS RASCO,
Louisiana State University, THE LENS COLLABORATION — The Low-Energy
Neutrino Spectroscopy (LENS) experiment will precisely measure the energy spec-
trum of low-energy solar neutrinos via charged-current neutrino reactions on in-
dium. The LENS detector concept applies indium-loaded scintillator in an optically-
segmented lattice geometry to achieve precise time and spatial resolution with un-
precedented sensitivity for low-energy neutrino events. The LENS collaboration is
currently developing prototypes at the Kimballton Underground Research Facility
(KURF) that aim to demonstrate the performance and selectivity of the scintillation
lattice technology. Benchmarking of the prototypes with Monte Carlo simulations
is an important step towards understanding the as-built detector performance and
implementing the full LENS. We will present an overview of the LENS experiment,
general results of Monte Carlo simulations, and the comparison of measurements
with the LENS prototypes to the Monte Carlo simulations.

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