

Abstract Submitted
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Initial Magnetics Data from the Lithium Tokamak eXperiment¹ L. BERZAK, R. KAITA, T. KOZUB, D.P. LUNDBERG, R. MAJESKI, T. STRICKLER, K. SNIECKUS, L. ZAKHAROV, Princeton Plasma Physics Laboratory, C.L. ELLISON, University of Colorado-Boulder — The Lithium Tokamak eXperiment (LTX) is a modest-sized spherical tokamak designed to investigate the novel, low-recycling lithium wall operating regime for magnetically confined plasmas. An extensive array of magnetic diagnostics is available to characterize the experiment, including 84 Mirnov coils (single and double axis, internal and external to the shell), 33 flux loops, 2 Rogowskii coils, and a diamagnetic loop. Diagnostics are specifically located to account for the presence of a secondary conducting surface and engineered to withstand both high temperatures and incidental contact with liquid lithium. A new data acquisition system utilizing MDSplus has been built and implemented, allowing shot by shot organized storage of data and calibrations. This new data acquisition system and broad set of magnetic diagnostics provide the first magnetic information on LTX plasmas.

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