

Abstract Submitted  
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**Progress on the Colorado FRC Experiment**<sup>1</sup> A. LIGHT, C.L. ELLISON, T. MUNSAT, M. SCHMIDT, University of Colorado at Boulder — Here we present the latest results from the Colorado FRC Experiment. Designed for the study of turbulence, flow, stability, and cross-field transport in a prolate field-reversed configuration, the project places emphasis on the investigation of spontaneous and driven flows. The experiment is a merged-spheromak device driven by magnetized coaxial guns. We have designed and constructed a two-point biasing probe for driving  $E \times B$  flows at close to Mach 1. Diagnostics in use include a multi-chord CO<sub>2</sub> quadrature interferometer, a compact 48-channel (16-position, three-axis) magnetic probe, a triple-probe, a two-dimensional Mach probe, gun-current Rogowski coils, and loops for measuring the flux ejected from each gun. All measurements are designed to be frequency-limited only by the data acquisition rate (40 MS/s) for recovery of fast phenomena. Details of the instruments and early results from experiments on merging and attempts to measure bulk rotation are presented.

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