

Abstract Submitted
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Measurements of Edge Toroidal Magnetic Fields at the Maryland Centrifugal Experiment¹ GRAHAM TAYLOR, CARLOS ROMERO-TALAMÁS, REMINGTON REID, WILLIAM YOUNG, RICHARD ELLIS, ADIL HASSAM, University of Maryland, MARYLAND CENTRIFUGAL EXPERIMENT TEAM² — A magnetic probe is being constructed to measure the total magnetic field, including in the toroidal direction, at the plasma edge of the Maryland Centrifugal Experiment (MCX). The probe design consists of 3 clusters of commercial chip inductors, with each cluster containing 3 inductors oriented in orthogonal directions [C.A.Romero-Talamás, et al., Rev. Sci. Instr. 75, 2664 (2004)]. The probe output will be digitized and integrated numerically. Measurements of the toroidal magnetic field along the z (axial) direction of MCX will allow for estimation of the current decrease on the center electrode as a function of z, as well as provide insight of where input power gets deposited in the plasma volume.

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