

Abstract Submitted  
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**Recent Development of Magnetic Field Measurements on Rotamak** DHARA KALARIA, JERMAIN GOSS, XIAOKANG YANG, TIAN-SEN HUANG, Prairie View A&M University — The new development of magnetic field measurements includes a series of Mirnov array for the study of magnetohydrodynamic (MHD) instability, and a magnetic probe array for the measurement of internal 3-Dimension magnetic field. The system of Mirnov array consists of four sets magnetic pick-up coils located at  $Z = \pm 4$  cm and  $Z = \pm 30$  cm along chamber axis; each array is made up of eight  $B_R$ -oriented coils mounted around the chamber surface at an equal interval of  $45^\circ$  toroidal angle. The 3-Dimensional probe array was originally made at RPPL with University of Washington, Seattle; the probe array has a total of 90 windings that can be used to simultaneously measure  $B_r$ ,  $B_\theta$ , and  $B_z$  at 30 radial positions. The detailed system design which includes the data acquisition system and the primary experimental results will be presented.

Dhara Kalaria  
Prairie View A&M University

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