

Abstract Submitted  
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**Singletip Langmuir Measurements of UW-RWM Plasma<sup>1</sup>** DAVID HANNUM, C.B. FOREST, R. KENDRICK, UW-Madison — The rotating wall machine is a linear screw-pinch built to study the role of different wall boundary conditions on the resistive wall mode (RWM). Its plasma is created by a hexagonal array of electrostatic guns. The central seven guns can be biased to discharge up to 1 kA of current each. The 20 cm diameter, 1.2 m long plasma column is held in place by a 600 G (max) axial guide field. A singletip Langmuir probe inserted from the opposite end of the chamber yields measurements of  $T_e, n_e$  and  $V_p$  in  $r$  and  $z$ . Several multivariable fitting routines are employed on the I-V curve to derive the standard measurements. I will present 2D Langmuir profiles of the unbiased plasma column in several density and field configurations; biased plasma current measurements are an ongoing concern.

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