

Abstract Submitted
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Singletip Langmuir Measurements of UW-RWM Plasma DAVID HANNUM, UW-Madison, CARY FOREST, ROCH KENDRICK — 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 seven electrostatic guns. The guns can be biased to discharge up to 1 kA of current each, firing independently or in tandem. 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 . The density fired from a single gun on the magnetic axis diffuses to the wall as it travels down the column, while the plasma from seven guns condenses in the center. I will present 2D Langmuir profiles and animations of the unbiased plasma column in several density and field configurations; biased plasma current measurements are an ongoing concern.

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