

Abstract Submitted
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Spherical Couette flow in a three meter diameter system SANTIAGO A. TRIANA, DANIEL S. ZIMMERMAN, Department of Physics and IREAP, University of Maryland, DANIEL P. LATHROP, Department of Physics, IREAP and IPST, University of Maryland — Construction of the three-meter diameter spherical Couette experiment at the University of Maryland is complete. Prior to sodium experiments measurements have been performed using water as a test fluid. Pressure measurements are provided by three piezo-electric transducers mounted on the outer sphere inner surface at a colatitude of 23.6° and separated 90° azimuthally. In addition, a hot-film wall shear stress probe located near one of the pressure probes complements the measurements. Direct optical imaging of tracer particles in the fluid is also implemented. Preliminary analysis show evidence of inertial modes and non-linear interactions among them.

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