

Abstract Submitted  
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**Thomson Scattering Measurements on the ZaP Experiment** R.P. GOLINGO, U. SHUMLAK, B.A. NELSON, D.J. DEN HARTOG, R.J. OBERTO, Aerospace and Energetics Research Program, University of Washington, ZAP TEAM — The ZaP Flow Z-Pinch Experiment is presently studying the effect of sheared flow on gross plasma stability. During a quiescent period in the magnetic mode activity, a dense Z-pinch with a sheared flow is observed on the axis of the machine. The present results are from deconvolutions of chord integrated measurements. A better comparison between the experimental and analytic results can be made once the pressure profile is known. A single point Thomson scattering system has been installed on the machine to directly measure the local electron temperature in the Z-pinch. Available components have been used to build the system reducing the cost. The system has a 3 mm radial resolution and can collect scattered light up to 4 cm off of the axis of the machine. (The Z-pinch has a 1 cm characteristic radius.) The temporal evolution of the background and scattered light is recorded on each pulse. The design and hardware allow the system to be upgraded to a multipoint system. The design of the system and initial results will be presented.

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