

Abstract Submitted
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Solving Key Astrophysical Puzzles at Wootton Center for Astrophysical Plasma Properties¹ DON WINGET, MICHAEL MONTGOMERY, The University of Texas at Austin, ROBERTO MANCINI, University of Nevada, Reno, BART DUNLAP, The University of Texas at Austin, GUILLAUME LOISEL, TAISUKE NAGAYAMA, JAMES BAILEY, THOMAS GOMEZ, MARC-ANDRE SCHAEUBLE, Sandia National Laboratories, DUANE LIEDAHL, Lawrence Livermore National Laboratory, PATRICIA CHO, The University of Texas at Austin, DANIEL MAYES, KYLE SWANSON, University of Nevada, Reno, BRYCE HOBBS, The University of Texas at Austin, WCAPP COLLABORATION — We will explore the physical and astrophysical motivations for the current experiments conducted by the Wootton Center for Astrophysical Plasma Properties (WCAPP) on the Z-machine at Sandia National Laboratories (SNL). This work informs our understanding of the Sun and Sun-like stars, radiation dominated plasma in accretion disks around compact objects—including supermassive black holes at the centers of galaxies, and our understanding of the compact endpoint of almost all stars, the white dwarf stars. The solution to significant puzzles surrounding these objects will come from reproducing, studying and benchmarking the underlying physics of these plasmas in the laboratory. The talks that follow in this section will detail the progress we have made in each of these areas.

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