

Abstract Submitted
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Overview of the Basic Plasma Science Facility¹ TROY CARTER, WALTER GEKELMAN, GEORGE MORALES, STEPHEN VINCENA, SHREEKRISHNA TRIPATHI, BART VAN COMPERNOLLE, PAT PRIBYL, University of California, Los Angeles — The Basic Plasma Science Facility (BaPSF) at UCLA is a US national user facility for studies of fundamental processes in magnetized plasmas. The centerpiece of the facility is the Large Plasma Device (LAPD), a 20m long, magnetized linear plasma device². This LAPD has been utilized to study a number of fundamental processes, including: collisionless shocks³, dispersion and damping of kinetic and inertial Alfvén waves⁴, turbulence and transport⁵ interactions of energetic ions and electrons with plasma waves⁶ and RF sheaths produced by an ICRF antenna⁷. An overview of the facility and recent upgrades and recent research using the facility will be provided. In addition to a discussion of how prospective users can apply for experimental time.

¹The Basic Plasma Science Facility is supported by DOE and NSF and was constructed using an NSF MRI

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⁷M. Martin, et al., Phys. Rev. Lett. **119**, 205002 (2017)

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