

Abstract Submitted
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SPIDER: Listening for the echoes of inflation from above the clouds JEFFREY FILIPPINI, Univ of Illinois - Urbana, SPIDER COLLABORATION — We report on the status of SPIDER, a balloon-borne instrument to map the polarization of the cosmic microwave background at large angular scales. SPIDER targets the B-mode signature of primordial gravitational waves, with a focus on mapping a large sky area at multiple frequencies. SPIDERs six monochromatic refracting telescopes (three each at 95 and 150 GHz) feed a total of more than 2000 antenna-coupled superconducting transition-edge sensors. A sapphire half-wave plate at the aperture of each telescope modulates sky polarization for control of systematics. We discuss SPIDERs first long-duration balloon flight in January 2015, as well as the status of data analysis and development toward a second flight.

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