

## The Wide-Field Imaging Interferometry Testbed: Developing a Powerful Technique for Future Space Based Interferometers

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We present recent results from the Wide-Field Imaging Interferometry Testbed (WIIT). Using a multi-pixel detector for spatial multiplexing, WIIT has demonstrated the ability to acquire wide-field imaging interferometry data. Specifically, these are “double Fourier” data that cover a field of view much larger than the subaperture diffraction spot size. This ability is of great import for a number of proposed missions, including the Space Infrared Interferometric Telescope (SPIRIT), the Submillimeter Probe of the Evolution of Cosmic Structure (SPECS), and the Terrestrial Planet Finder (TPF-I)/DARWIN. The recent results are discussed and analyzed, the characteristics and behavior of the testbed is discussed, and future study directions are described.