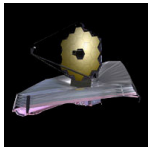

11688 - The Wake of Planets: Analyzing Serendipitous Late-type Debris Disk Discoveries from Exoplanet Surveys

Cycle: 5, Proposal Category: AR

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OBSERVATIONS

ABSTRACT

Spatially resolved images of debris disks provide a unique window into the formation and evolution of planetary systems. However, due to observational biases, the sample of resolved debris disks is dominated by early-type host stars — stars which make up a very small fraction of the overall stellar population. Since the mechanisms driving planet formation and evolution appear to be a strong function of spectral type, a greater

understanding of the planetary systems of GKM stars is functionally gated behind the very small number of late-type debris disks that are known. We propose to conduct the first analysis of a sample of 6 serendipitous late-type debris disks detected as part of exoplanet surveys during JWST Cycles 2 and 3. Our program will provide a benchmark sample of GKM debris disks for further study while also providing key measurements for understanding the role of spectral type in the formation and evolution of planetary systems.

OBSERVING DESCRIPTION