

Conference: Signposts of Planets
Location: GSFC, Greenbelt, MD
Dates: October 18-20, 2011

Presentation Title: "Zodiac II: Debris Disk Imaging Potential"
Poster or Paper: talk
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Abstract:

Zodiac II is a proposed coronagraph on a balloon-borne platform, for the purpose of observing debris disks around nearby stars. Zodiac II will have a 1.2-m diameter telescope mounted in a balloon-borne gondola capable of arc-second quality pointing, and with the capability to make long-duration (several week) flights. Zodiac II will have a coronagraph able to make images of debris disks, meaning that its scattered light speckles will be at or below an average contrast level of about 10^{-7} in three narrow (7 percent) bands centered on the V band, and one broad (20%) one at I band. We will discuss the potential science to be done with Zodiac II.