

Meeting: American Astronomical Society
Location: Anchorage, AK
Dates: March 16-27, 2012

Title: "An Eccentric Debris Ring around the Nearby G Star HD 202628"

Presenter: Karl R. Stapelfeldt

Abstract:

A new debris disk has been imaged in visible light around the G2V star HD 202628 using the STIS coronagraph on the Hubble Space Telescope. The broad ring is inclined 61 deg from face-on and extends as far as 260 AU from the star. The star is noticeably displaced from the apparent ring center by 20 AU. The ring inner edge is sharp and well-described by an inclined ellipse with $a = 158$ AU, $e = 0.18$, and the star at one focus. These properties are similar to the Fomalhaut debris ring and likewise suggest ring sculpting by a planetary-mass companion with semi-major axis $\sim > 100$ AU. The presence of a planet so widely separated from a solar-type star poses a new challenge for planet formation theories.