Abstract:
Zodiac II is a proposed coronograph 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 arcsecond 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.