

AAS 199th meeting, Washington, DC, January 2002
Session 60. Star Formation - Accretion and Outflow
Display, Tuesday, January 8, 2002, 9:20am-6:30pm, Exhibit Hall

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[60.09] HST Snapshot Survey of Nebulous Young Stellar Objects

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Recent Hubble Space Telescope observations have provided the best resolved images of young circumstellar disks yet seen. In several cases, of which HH 30 is the best known example, nebulous young stars are resolved by HST into bipolar reflection nebulae several hundred AU in extent separated by a central dark absorption lane obscuring direct view of the star. Modeling suggests that these systems are edge-on optically thick circumstellar disks which occult the radiation from the star and near-stellar disk environment out to far-IR wavelengths. We are presently conducting an HST snapshot survey of up to 50 IR-selected young stellar objects with WFPC2 to study the detailed morphology of their disks and envelopes and probe the effect of inclination on the infrared spectral energy distribution of disk/envelope systems. Thus far, we have obtained images of 26 targets using the F814W filter of WFPC2. Six of these young stellar objects appear as non-nebulous point sources; ten are PSFs accompanied by nebulosity; and six are fully nebulous with no PSF. One of the objects was found to be an interacting galaxy pair. Preliminary images and results of this survey will be presented and discussed.

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