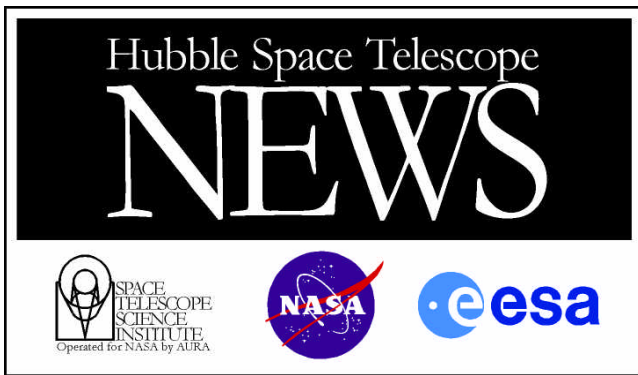


Disks around Young Stars
Hubble Space Telescope • WFPC2

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HUBBLE SEES DISKS AROUND YOUNG STARS

Top left: This Wide Field and Planetary Camera 2 (WFPC2) image shows Herbig-Haro 30 (HH 30), the prototype of a young star surrounded by a thin, dark disk and emitting powerful gaseous jets. The disk extends 40 billion miles from left to right in the image, dividing the nebula in two. The central star is hidden from direct view, but its light reflects off the upper and lower surfaces of the disk to produce the pair of reddish nebulae. The gas jets are shown in green.

Credit: Chris Burrows (STScI) and the WFPC2 Science Team.

Top right: DG Tauri B appears very similar to HH 30, with jets and a central dark lane with reflected starlight at its edges. In this WFPC2 image, the dust lane is much thicker than seen in HH 30, indicating that dusty material is still in the process of falling onto the hidden star and disk. The bright jet extends a distance of 90 billion miles away from the system.

Credit: Chris Burrows (STScI) and the WFPC2 Science Team.

Lower left: Haro 6-5B is a nearly edge-on disk surrounded by a complex mixture of wispy clouds of dust and gas. In this WFPC2 image, the central star is partially hidden by the disk, but can be pinpointed by the stubby jet (shown in green), which it emits. The dark disk extends 32 billion miles across at a 90-degree angle to the jet.

Credit: John Krist (STScI) and the WFPC2 Science Team.

Lower right: HK Tauri is the first example of a young binary star system with an edge-on disk around one member of the pair. The thin, dark disk is illuminated by the light of its hidden central star. The absence of jets indicates that the star is not actively accreting material from this disk. The disk diameter is 20 billion miles. The brighter primary star appears at top of the image.

Credit: Karl Stapelfeldt (JPL) and colleagues.

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