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Inner-rim of molecular disk spatially resolved

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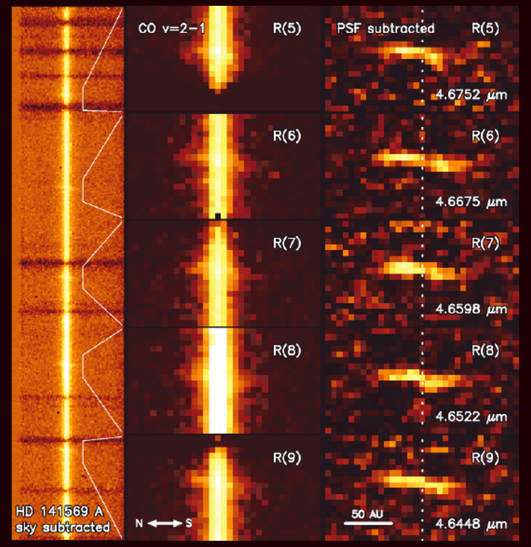

The molecular disk around the Herbig Ae star HD 141569 A is spatially resolved down to the inner-rim truncation with the Infrared high resolution spectroscopy with the Adaptive Optics system.

Size of the inner hole, as is measured by CO 4.6 μm, is 11 ±2 AU, close to the gravitational radius of the star. It strongly suggests that the inner hole was created by the photoevaporation.

The HI emission (Pf γ at 3.74 μm) shows double-peaked profile with much broader line width (Δv = 500 km/s) than CO 4.6 μm (Δv = 10km/s).

Although the inner 10 AU is already cleared with CO gas, there is still atomic gas left inside the hole of the molecular disk at 0.01-0.1 AU from the star.