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Study of the inner disk of the Herbig star MWC480

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The inner structure and properties (temperature, mass) of the circumstellar disk of Herbig star MWC480 are studied by stellar interferometry method used in the infrared and are interpreted using semi-analytical models. From these models, the SED (Spectral Energy Distribution) was fitted and multi-wavelength intensity map of the source were calculated. The intensity map provides the input for modeling the Keck Interferometer (KI) data in the near-infrared (near-IR) and the data of the Very Large Telescope Interferometer (VLTI) with the mid-infrared instrument MIDI. We conclude that with our limited set of data, we can fit the SED, the Keck visibilities and the MIDI visibilities using a two-components disk model. Furthermore, we suspect that MWC480 has a transitional dusty disk. However, we need more MIDI observations with different baseline orientations to confirm our modeling.

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