

## **CHALLENGES OF HIGH RESOLUTION RADIATIVE TRANSFER IN DUST SUBLIMATION ZONES**

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Radiative transfer calculations are a key tool in reconstructing dust properties from observed spectra and images of circumstellar environments. What is traditionally required are dust optical properties and a model of dust distribution in space. But thanks to high resolution radiative transfer calculations, it has been recognized recently that this is an unsolvable problem for zones of dust sublimation on the surface of optically thick clouds. The inner region of protoplanetary disks, where we expect formation of terrestrial planets, is such an example. Solution might be reached by combining dust dynamics and gas properties with radiative transfer, but the set of input parameters and output possibilities is dramatically increased.