Workshop

Stellar End Products: The Low Mass - High Mass Connection

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Title:
Probing Hypergiant Mass Loss with Adaptive Optics Imaging and Polarimetry in the Infrared

Abstract:
We probe hypergiant star mass loss in the infrared. Adaptive optics (AO) imaging polarimetry of IRC +10420 at 2.2μm confirms visual evidence that we view it pole-on, and reveals low-latitude optically thick dust with intrinsic polarization of 30%. Combined with 3-5μm AO imaging we find nebular temperatures well in excess of equilibrium for typical dust. AO imaging and polarimetry of VY CMa's nebula from 1-5μm reveal both optically thick scattering & high intrinsic polarization, which indicates that the depolarizing effect of multiple scatters is mitigated by low albedo, assuming typical dust.