The heating sources for the dust emission from Cassiopeia A

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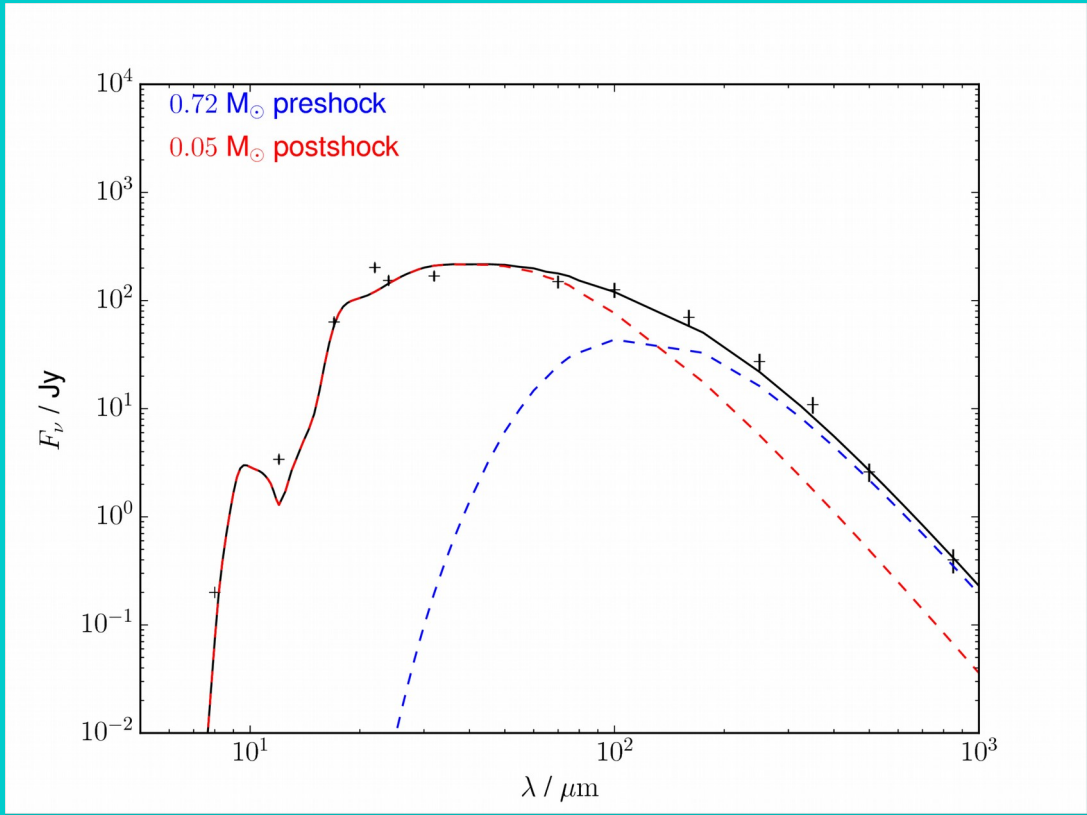
- Cas A physical conditions in pre- and post-shock ejecta from literature – synchrotron radiation field, electron/nuclei number density & temperature

- Calculated dust emission from distribution of grain sizes, heated by radiation field and particle collisions

- Fit to Cas A dust SED from de Looze et al. (2017) to get dust masses

- Need either small (~1 nm) grains in shocked region or T > 10^7 K to reproduce short wavelength observations



Black crosses: observed SED
Black line: model SED

Preshock: amin = 0.05 μm, amax = 1.0 μm
Postshock: amin = 0.001 μm, amax = 0.25 μm