**Cosmic Dust: origin, applications & implications** 



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## **Observability of Dusty Debris Disks around M-stars**

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During the last few decades many debris disks have been found and resolved around A to K-type stars. However, only a handful of debris disks have been discovered around M-stars, and the reasons for their paucity remain unclear.

Here we check whether the sensitivity and wavelength coverage of present-day telescopes are simply unfavorable for detection of these disks or if they are truly rare. We approach this question by looking at different surveys that have searched for debris disks around M-type stars. Assuming that M-star disks are "similar" to those of earlier type stars in some sense (i.e., in terms of dust location, temperature, fractional luminosity, or mass), we check whether these surveys should have found them. Examining integration times and sensitivities of the instruments used, we create detection limit plots for each of these surveys. We will present and discuss the implications of these results for the "true" incidence rates of M-star debris disks.

## Consider for a poster?

Yes

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