

## ASTROPHYSICS SEMINAR SERIES



**Dr. Chris Stark**

STScI

Tuesday, November 5 12:30 pm - Rm 184 NSH

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# The exoplanet yield landscape for future space telescopes

The expected yield of exoplanets is a useful metric for designing future exoplanet-imaging missions. Two primary technologies considered for these future missions, coronagraphs and starshades, greatly differ in their implementation and limitations, and as a result their scientific return. I will discuss the pros and cons of these technologies, how we perform high fidelity mission simulations, and show estimates for the exoplanet yields of a wide range of future direct-imaging missions. Finally, I will discuss astrophysical uncertainties, lessons learned, and present a simple framework quantitatively relating the yield of a mission to the age-old question, “Is there life elsewhere in the universe?”



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