

Katie Mack – Colloquium – March 25,2021
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Title: Dark Matter: A Cosmological Perspective

Abstract: While it is considered to be one of the most promising hints of new physics beyond the Standard Model, dark matter is as-yet known only through its gravitational influence on astronomical and cosmological observables. I will discuss our current best evidence for dark matter's existence as well as the constraints that astrophysical probes can place on its properties, while highlighting some tantalizing anomalies that could indicate non-gravitational dark matter interactions. Future observations, along with synergies between astrophysical and experimental searches, have the potential to illuminate dark matter's fundamental nature and its influence on the evolution of matter in the cosmos from the first stars and galaxies to today.