

# Astrophysics Seminar

Monday, April 24, 2017



## Planets from Cradle to Grave: The Perks and Perils of an Energetic Radiation Diet

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*CfA*

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Recent years have witnessed a growing realisation that UV to X-ray radiation is crucial for the formation and evolution of planets. Photo-evaporation and ionization drive protoplanetary disk winds and accretion, while nascent planetary atmospheres can be ravaged by stellar winds. The effects of energetic particles remain uncertain but might be profound. Energetic radiation can be both beneficial and destructive. Close-in planets in the habitable zones of M dwarfs, such as TRAPPIST-1, could be precariously situated. I will highlight some outstanding problems in the formation and evolution of disks and planets, raise some directions for future progress, and touch on how we are gaining a better understanding of the underlying stellar magnetism that fuels the energetic radiation environments of stars and planets.



3:30pm in CAS 502. Refreshments served at 3:15pm in CAS 500.

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Wednesday May 17

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