From stars to planets: the importance of radiative transfer

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Abstract

Radiative transfer is governing the structure and evolution of stars and planets. I will present grey and semi-grey analytical solutions for irradiated atmospheres and will discuss how they inform us on the evolution and compositions of exoplanets. I will then show that the growth of the inner radiative region in the pre-MS phase of stellar evolution is key to the estimation of the impact of planet formation on stellar composition.

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