

# **Exospheric Atomic Hydrogen Escape from Close-in Hot Jupiters under the Influence of Stellar Radiation Pressure**

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An important question in the evolutionary history of exoplanets with very small orbital distances ( $< 0.1$  AU) concerns whether they have been subject to significant atmospheric loss process either via thermal or non-thermal mechanisms. The thermal Jeans escape process has been estimated to be of no consequence even with an exospheric temperature of a few to ten thousand K. However, the ballistic motion exospheric hydrogen atoms of a close-in exoplanet is influenced strongly by the radiation pressure acceleration of the intense Lyman alpha radiation of the central host star. Such modified Jeans escape rate could be of interest to the mass loss budget. In this work, we will present the statistical results from using a number of exospheric models and orbital configurations of the hot Jupiters with a view to clarify this issue.