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# PRALINES: LyC and LyA escape from GMCs

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## Abstract

In this talk, we will introduce our ongoing efforts to understand the propagation of Lyman continuum and Lyman alpha photons from giant molecular clouds (GMCs). For this purpose, we perform a suite of radiation-magneto-hydrodynamic simulations, called PRALINES, using a sink particle algorithm and stellar feedback. We show that high surface density, high metallicity, and weak turbulence tend to lower the escape fraction of LyC photons ( $f_{\text{LyC}}$ ). The escape is most efficient if the total star formation efficiency in the GMC is  $\sim 20\%$ . The propagation of LyA forms a characteristic sequence in the  $V_{\text{sep}}-f_{\text{LyC}}$  plane, suggesting that this may still be useful to infer the kinematic information about the ISM/CGM.

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