

Investigating the escape of H ionizing radiation is key in interpreting our constraints on Reionization. To that end, increasingly detailed numerical simulations have begun to shed light on the complex relationship between the properties of early galaxies and their LyC escape fractions. Building on previous work, we leverage the excellent agreement of the fully coupled Cosmic Dawn III RHD simulation with constraints on Reionization and the galaxy population, to constrain LyC escape in a large statistical sample of galaxies.

We find low mass galaxies ( $<4E9$  Msun) drive Reionization, owing to a strong negative correlation between halo mass and LyC escape fraction. In the later stages of the EoR, higher mass galaxies take over, due to strong radiative suppression in lower mass galaxies. Dust plays a significant, but secondary role in regulating the escape of ionizing photons from massive bright galaxies, further reducing their participation to Reionization.