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## Simulated LAE galaxies during Reionization

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In this work, we study the number density of Lyman Alpha Emitter (LAE) galaxies, their physical properties, and synthetic spectra at redshift  $\sim 6$  using high-resolution hydrodynamical simulations with radiative transfer from the Thesan project. By recreating the scenario described in Becker et al. 2018, we test the hypothesis that observations to date are missing the vast majority of the high-redshift galaxies' signals since they are extremely faint and, thus, are out of the observational limits of our current telescopes. We also follow the evolution of the neutral Hydrogen fraction, the chemical enrichment of the circum- and intergalactic medium, and the specific star formation rate of galaxies in the simulation at the end of Reionization, and evaluate why the detections from HST and the Silverrush project significantly underestimate the number of faint galaxies. Our study indicates an observational bias to massive galaxies in the field. Thus, we forecast the properties of the dwarf galaxies responsible for completing the budget of ionizing photons that concluded the Epoch of Reionization.

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