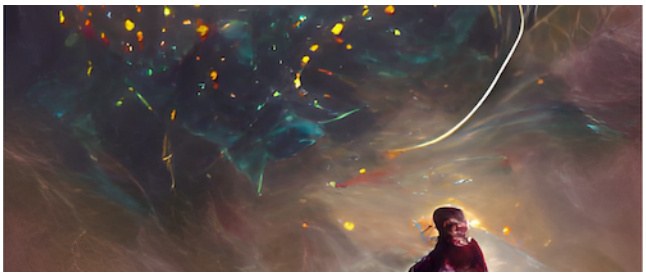

Contribution ID: **18** Type: **not specified**

Galaxy Formation Simulations for Galaxy Clustering with Emission Line Galaxies

Tuesday, 8 March 2022 14:20 (20 minutes)

In order to investigate the structure formation and evolution at the distant Universe, emission line galaxies (ELGs) are suitable targets for upcoming spectroscopic surveys (PFS, Euclid, DESI). In order to address clustering properties of ELGs, we utilise galaxy formation hydrodynamical simulations: IllustrisTNG. We have developed the method to simulate emission line intensity with stellar population synthesis code. In simulations, we can directly investigate the relation between properties of ELGs and host halos and measure the cosmological statistics, e.g., correlation function. We address how biased inferred cosmological parameters are with the measured correlation function when the standard analysis is employed and scrutinize galaxy-halo connection, e.g., halo occupation distribution.

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Session Classification: Day 2 Afternoon