

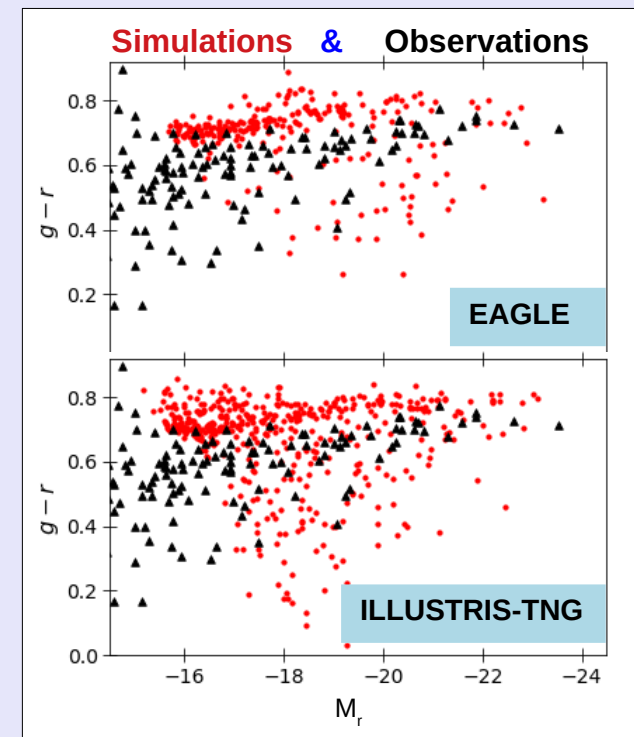
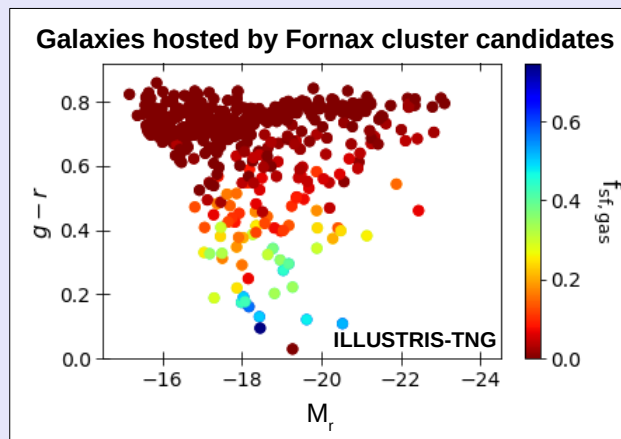
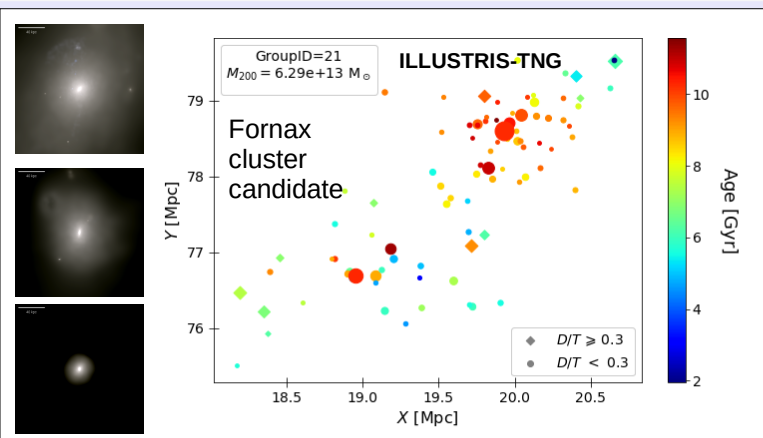
Fornax-like clusters in cosmological simulations

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ABSTRACT

The project #59 of the S-PLUS collaboration is aimed at studying the Fornax galaxy cluster. We plan to search for Fornax-like galaxies in the simulations and compare properties of such simulated systems with S-PLUS data. By following the formation histories of simulated objects, we will try to propose possible formation scenarios for similar observed systems. In this poster, we present a preliminary analysis of Fornax-like cluster candidates selected from state-of-the-art cosmological simulations.



Summary

- We searched for systems similar to the **Fornax cluster** in cosmological simulations.
- We presented a preliminary selection of such systems in the **EAGLE** and **Illustris-TNG** simulations.
- We analyzed **relations between different properties** of galaxies, such as $g-r$, M_r , stellar age, M_* , star-forming gas fraction ($f_{\text{sf, gas}}$), sSFR, disc-to-total ratio, among others.
- We carried out a **preliminary comparison between the simulated and observed color-magnitude relations**, obtaining good agreement between simulated and observed trends.