

The 'Valencian-GALAXY-zoo'

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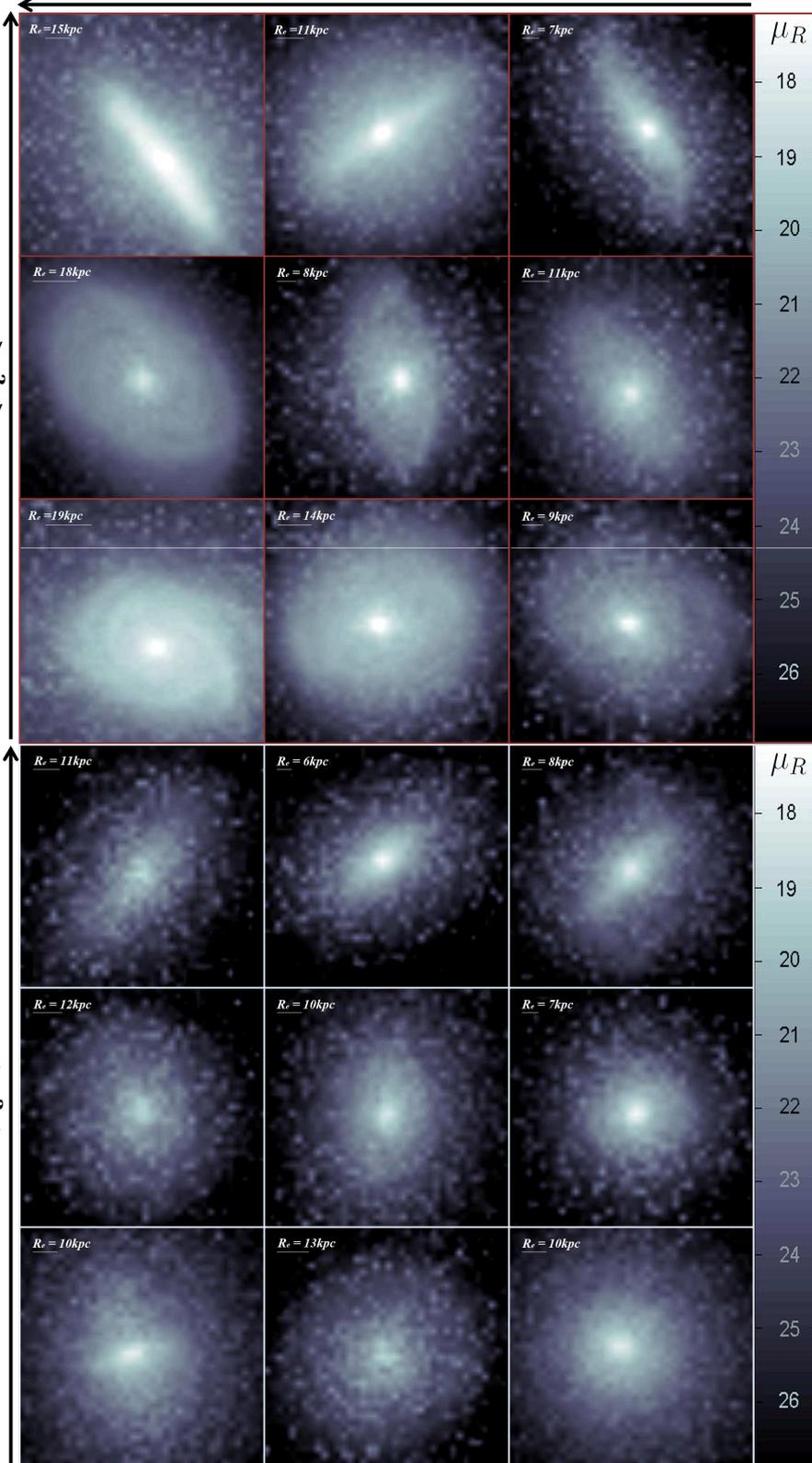
Abstract



-We present a sample of the most massive galaxies ($M^* > 10^{11} M_{\odot}$) found at $z=0$ in a fully cosmological simulation performed with MASCLET (Mesh Adaptive Scheme for Cosmological structure evolution).
-The upper (lower) panel shows the merger (quiet) galaxies depending on ellipticity (ϵ) and velocity vs velocity-dispersion (v/σ)
-We use the ssp MILES models to make our galaxies bright and to study some observables of our fully cosmological synthetic galaxies.



$> v/\sigma >$

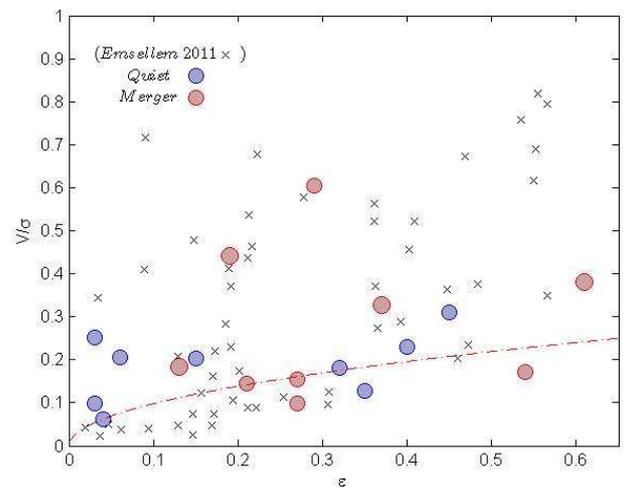


Simulation

* The simulation described in this poster was performed with the cosmological code **MASCLET** (Quilis 2004). The initial conditions were set up at $z = 50$, using a CDM transfer function, for a **cube of comoving side length 44Mpc**. The computational domain was discretised with 128^3 cubical cells, using a maximum of seven levels of refinement, which gives a peak **spatial physical resolution of 2.69kpc** at $z = 0$. The star formation is introduced in the MASCLET code following the ideas of Yepes et al. (1997) and Springel & Hernquist (2003).

Images

- * Each image is a 100x100 physical kpc square.
- * To convert physical quantities in observables (put light in the SSP) we adopt the **MIUSCAT** stellar population synthesis models (Vazdekis et al.2012; Ricciardelli et al.2012)
- * The **ellipticity (ϵ)** is measured with the two-dimensional fitting code **GALFIT** (Peng et al. 2002)
- * The **velocity vs velocity-dispersion (v/σ)** value is computed using each **1D galaxy velocity and sigma profile**.



Figure

* Our sample galaxy distribution (red and blue circles) in the anisotropy diagram comparing with the distribution of real galaxies (x) from Emsellem et al. 2011 with similar mass range.

References:

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