

The 'Valencian-GALAXY-zoo'

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Abstract



-We present a sample of the most massive galaxies (M* >10^11Mo) found at z=0 in a fully cosmological simulation performed with MASCLET (Mesh Adaptative Scheme for CosmologicaL structurE evoluTion) . -The upper (lower) pannel shows the merger (quiet) galaxies depending on elipticity (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.



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 $> v/\sigma >$

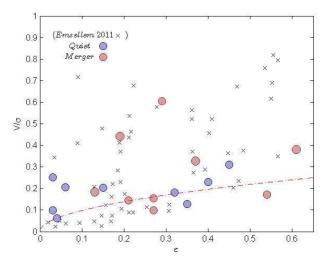
Simulation

* 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 1283 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 covert 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 elipticity (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:

Quilis V., 2004, MNRAS, 325, 1426. Vazdekis A., Ricciardelli E., Cenarro A. J., Rivero-González J. G., Díaz-García L. A., Falcón-Barroso J., 2012, MNRAS, 3156 Ricciardelli E., Vazdekis A., Falcón-Barroso J., 2012, MNRAS, 3155 Emselles et al.,2011, MNRAS,414, 888 Peng C.Y,Ho L.C.,Impey C.D.,Rix H-W.,2002,AJ,124,266 Yepes G., Kates R, Khokhlov A. Klypin A., 1997, MNRAS, 284, 235