Early-type galaxies (ETGs) = spheroidal galaxies morphologically selected

**High-z sample:** all the ETGs at $1.26 < z < 1.6$ with available velocity dispersion $\sigma$, $M_{\text{star}}$ (BC03/Chabrier) and $R_e$ (r band rest) (Gargiulo et al. 2014; Longhetti et al. 2014; Cappellari et al. 2009; Bezanson et al. 2013; Belli et al. 2014).

**Local Old Sample:** ETGs at $0.05 < z < 0.06$ from SDSS with available $\sigma$, $M_{\text{star}}$ (BC03/Chabrier) and $R_e$ (r band) and luminosity weighted age (LWA) $> 9$ Gyr to take into account the progenitor bias (Thomas et al. 2010).

**RESULTS**
From the comparison of structural ($M_{\text{star}}$ and $R_e$) and dynamical ($\sigma$) parameter of **high-z sample** and **local old sample** we have found:

- All high-z ETGs have a local old counterpart $\rightarrow$ simplest scenario: they have completed their stellar mass accretion.

- At fixed $\sigma$, the minimum and maximum value of $R_e$ of the two distributions excludes that all the ETGs at $z \sim 1.4$ significantly evolve in size in the last 9 Gyr.

- At fixed $\sigma$, the largest and more massive local old ETGs do not have a correspondent at $z \sim 1.4$ $\rightarrow$ they appear later (inside-out accretion / morphological transformation)