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Contribution of minor mergers to the growth of elliptical galaxies

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Abstract

Size evolution studies have shown that the structural properties of the elliptical galaxies dramatically changed with cosmic time (e. g. Trujillo et al. 2007). This result challenges the ideas developed from the detailed analyses of the stellar populations of these galaxies in the nearby universe. The study of the local elliptical galaxies has revealed their stars are old, and formed over short-timescales (see the review by Renzini 2006). In order to resolve this discrepancy, it has been hypothesized that new material continuously accretes in minor merger events (Naab et al. 2007). Index-index diagrams are a promising way to probe the minor merger scenario. However, a large sample of galaxies is required for this goal. In this poster we present our preliminary index measurements of a subsample of galaxies studied by Trujillo et al. (2007) using the spectra published by the DEEP2 DR4 survey (Newman et al. 2012).

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