

## The Dichotomy of the Mass-radius Relation and the Number of Globular Clusters<sup>1</sup>

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Globular clusters (*GCs*) are among the oldest stellar systems in the early universe. We present galaxies formed with two different stellar populations, which depend on the relation between mass and radius. The primordial values of the number of globular clusters can be distinctly separated into two groups of densities, and thus are dependent on galaxy mass. Evidence that dE and E galaxies may have different origins has been found, the former having formed a smaller number of *GCs* per galaxy, which is consistent with downsizing.

*Keywords:* globular cluster : number of globular clusters — galaxies: evolution.

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