Building an unbiased sample of quiescent galaxies up to $z = 2.5$ based on the Mg(UV) absorption index

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Abstract

Samples of "red & dead" galaxies selected through traditional color-based techniques usually suffer from contamination by strongly dust obscured sources. We are using GTC/OSIRIS data from the SHARDS project on the GOODSN field to define unbiased samples of really quiescent massive galaxies at different redshifts up to $z = 2.5$. By measuring the Mg(UV) absorption index in the pseudo-spectra of these galaxies, we intend to determine the redshift evolution of the characteristic age of their stellar populations to shed some light into their assembly epoch.

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