Seminarium Astrofizyczne
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CFT PAN

"Formation and evolution of stellar population based on the red passive galaxies observed up to z ~ 1"

We would like to present the studies over the evolution and the star formation history of passive galaxies observed by the VIMOS Public Extragalactic Redshift Survey (VIPERS). We compare the 4000 Å break ($D4000_n$) and the Hδ Lick index ($H\delta_A$) measured on VIPERS stacked spectra with a grid of synthetic spectra to constrain the star formation epochs of these galaxies. Assuming a single burst formation, we find that high-mass passive galaxies formed their stars at z_{form}~2, while low-mass galaxies formed their main stellar population more recently, at z_{form}~1. The consistency of these results, obtained using two independent estimator of the formation redshift (D4000 and $H\delta_A$), further strengthens a scenario in which star formation proceeds from higher- to lower-mass systems as time passes, i. e. what has become known as the 'downsizing' picture.

Serdecznie zapraszam,
Paweł Łuczak