

Обзор ArXiv/astro-ph январь 2020

От Сильченко О.К.

ArXiv: 2001.02465

Galaxy And Mass Assembly (GAMA): Defining Passive Galaxy Samples and Searching for the UV Upturn

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Отсев по всем индикаторам недавнего звездообразования

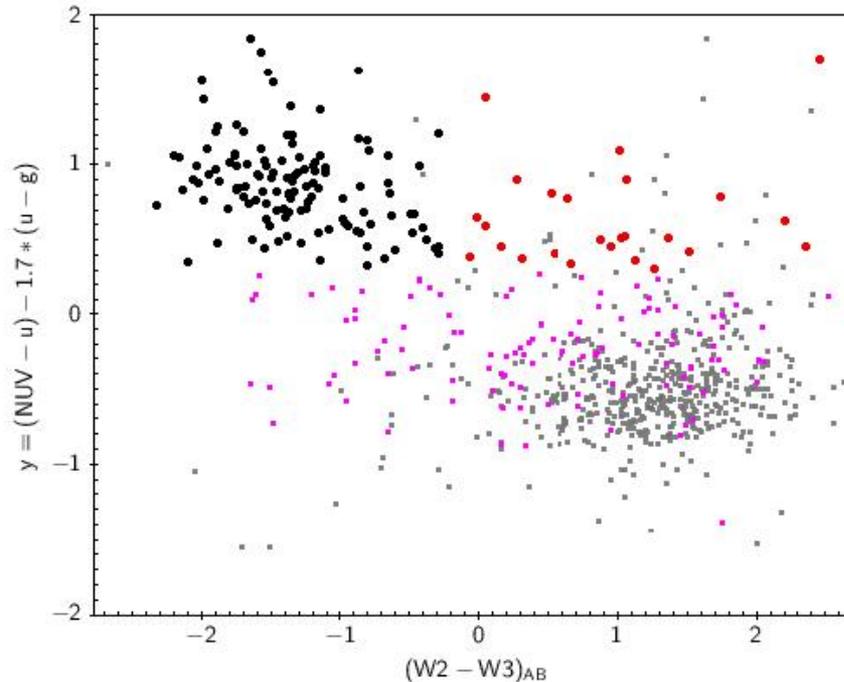


Figure 4. Rectified NUV-optical colour y versus *WISE* $(W2-W3)_{AB}$ colour for the various samples, plotted with the same colour codes as before. In addition the 122 objects from the NUV red sequence which also have *WISE* colours of non-star-forming galaxies are now plotted in black (the NUV+*WISE* red sequence sample). Although we do not impose a strict upper limit, errors in the *WISE* colours for our galaxies are less than 0.2 magnitudes in the large majority of cases. Errors in y are also around 0.2.

Вот так в результате сузилась красная последовательность

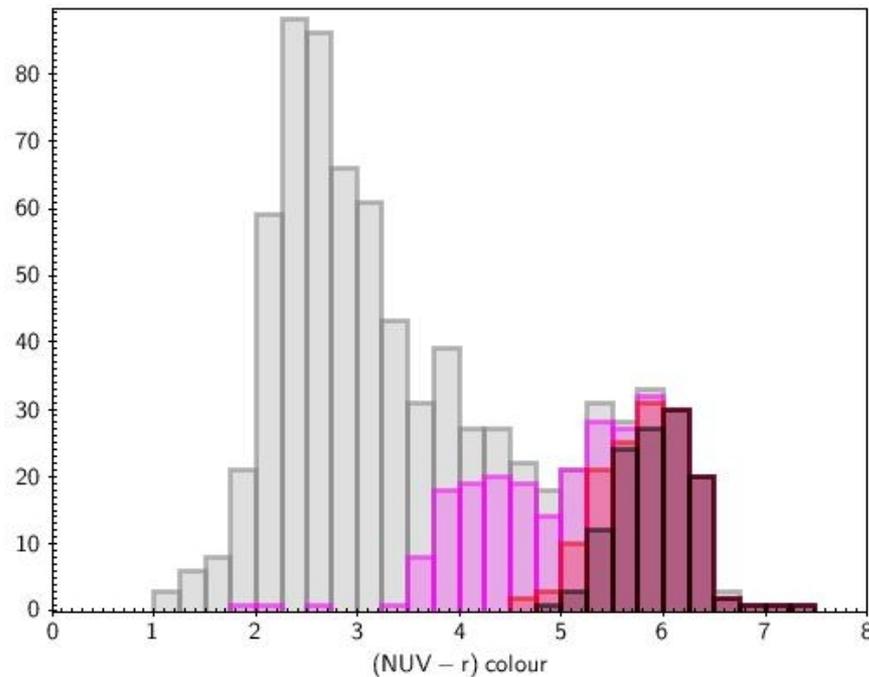


Figure 2. Distribution of rest-frame $(NUV-r)$ colours for our overall sample of nearby bright galaxies (grey) and the initial optical red sequence selected sample of galaxies (pink). The colour errors are around 0.2 magnitudes. The red histogram shows the distribution for the red sequence galaxies after the use of the additional cut in $(NUV-u)$ as discussed in Section 3.1 (the NUV red sequence sample with 147 objects) and the dark red (black bordered) histogram shows the 122 objects remaining after a further cut on $WISE$ ($W2-W3$) colour (the NUV+ $WISE$ red sequence sample from Section 3.2).

И все же разброс остался – это UV-upturn

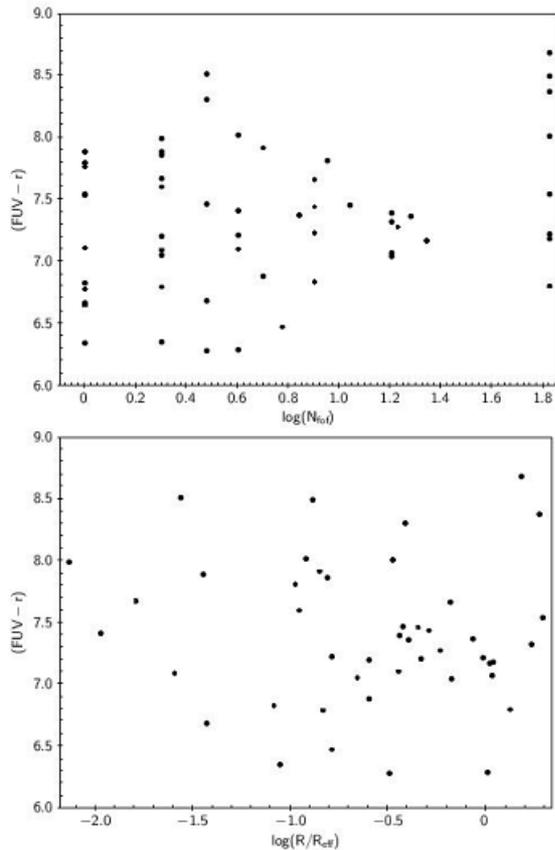


Figure 11. $(FUV-r)$ colour versus the host galaxy group multiplicity (top panel) and versus radial distance, normalised by group effective radius, (bottom panel) for the final NUV+WISE red sequence sample.

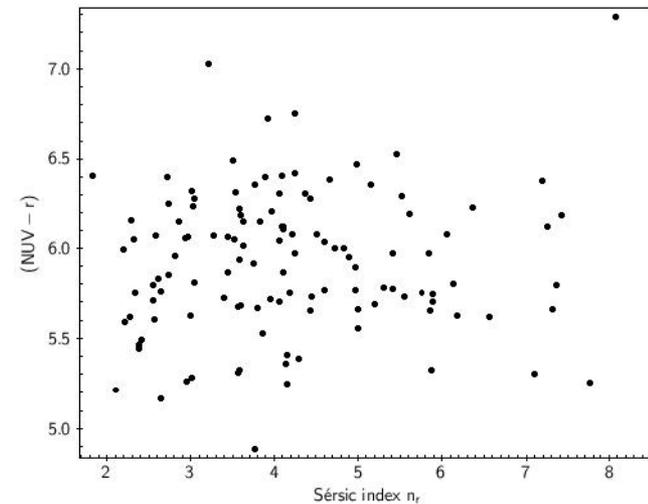
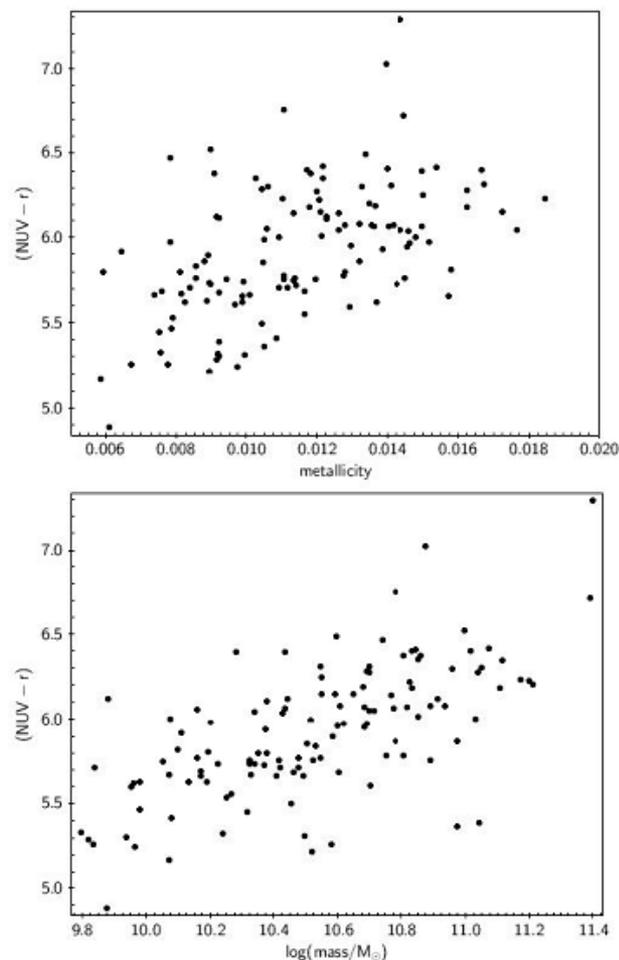


Figure 12. Distribution of rest-frame $(NUV-r)$ colour for the NUV+WISE red sequence galaxies as a function of r -band Sérsic index.

И ОН НИ ОТ ЧЕГО НЕ ЗАВИСИТ!

Не только от окружения, но даже и от массы!



- Ну то есть корреляция цвета с массой есть, а вот разброс цвета на фиксированной массе не меняется!

Figure 14. Distribution of rest-frame (NUV- r) colour as a function of stellar metallicity as in the bottom panel of Figure 11, but for the final NUV+WISE red sequence only (top panel), and as a function of stellar mass for the same sample (bottom panel).