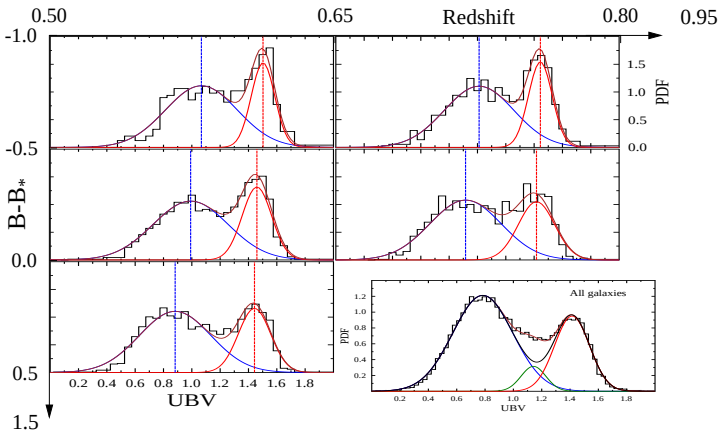
Morphology of VIPERS galaxies: co-evolution of colours and shapes

Janusz Krywult[1], Agnieszka Pollo[2] and the VIPERS Team
[1]UJK Kielce, [2]UJ Kraków, NCBJ Warszawa

Galaxy colours



Results

- Clear bimodal colour and Sersic index $\log(n)$ distribution of galaxies in each redshift-luminosity bin is very well described by the sum of two Gaussians.
- The galaxy excess, between the blue and red peaks, is observed only for the total galaxy colour distribution. We conclude the green valley seems to be a spurious effect.
- In the redshift range $0.5 < z < 1$ the evolution of the rest-frame colour and shape is slightly stronger for the late-type galaxies.
- Sersic index rises with the rest-frame luminosity for both late and early-type galaxies, and this effect is stronger for the early population.
- $\Longrightarrow$ **see poster 30**

Colour-shape & magnitude-redshift plane

Early gal. $\begin{cases} UBV = 1.608 - 0.282z - 0.063(B - B_*) \\ \log(n) = 0.512 - 0.031z - 0.098(B - B_*) \end{cases}$