

ALIGNMENT OF GALAXIES IN SUBCLUSTRES PLACED IN RICH REGIONS

V. Korshunov, E. Panko

*Department of Theoretical Physics and Astronomy,
I.I. Mechnikov Odesa National University
valerij.korshunov@gmail.com*

The study of galaxies orientation is one of standard tests of galaxies formation scenarios. In filaments and walls the elliptical and disc galaxies show different orientations (Joachimi et al., 2015).

We present the results of study of orientations of galaxies in 43 galaxy clusters which have filamentary or another regular substructures from the sample of 19 rich (richness 5 and more) superclusters containing 112 galaxy clusters. The observational basis of the work is PF Catalogue (Panko & Flin, 2006) based on Muenster Red Sky Survey (Ungruhe et al, 2003).

We compared the orientations of galaxies in filamentary structures with the directions of these substructures. We detect the not-random distribution of the mentioned acute angles. The galaxies tend to align along to direction of the cluster regular substructure.

The results of the research are discussed.

1. Joachimi, B., Cacciato, M., Kitching, T.D. et al., 2015, Space Science Reviews, 193, 1
2. Panko, E., Flin P., 2006, Journal of Astronomical Data, 12, 1.
3. Ungruhe, R., Saitter, W. C., Durbeck, H. W., 2003, Journal of Astronomical Data, 9, 1.