

Spatial galaxy distribution in real and redshift space for the Local Universe

Shirokov S.I. (SAO RAS), Solov'ev I.A. (SPbSU), Sokolov I.V. (INASAN), Lovyagin N.Yu. (SPbSU),
Sylos Labini F. (INFN), Baryshev Yu.V. (SPbSU)

Stanislav Shirokov

Special Astrophysical Observatory of the Russian Academy of Sciences, Russia

The Cosmicflows-2 catalog of about 8000 redshifts and peculiar velocities for the Local Universe galaxies gives opportunity for preliminary testing the Λ CDM prediction of strong changing in the slope of correlation function derived for the real space and for the redshift space. We apply the conditional density analysis and modified pair-wise distribution method to derive the slope of the power-law complete correlation function. Our results demonstrate that the observed change of slope is less than 0.1. Influence of incompleteness is restricted by comparison with the 2MRS redshift catalog. Comparison of the Local Universe structure with more distant large scale structure is discussed.