U21a Effects of the local bias on the reconstruction of the large scale structure

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Effects of biasing on the reconstruction of the large scale matter structure from the distribution of galaxies are studied on the assumption of the local bias mechanism. We derive a simple analytic formula predicting the accuracy of each reconstructed Fourier mode. It is shown that in the future redshift surveys such as SDSS, the noise from the local bias could be comparable to (or even greater than) the shot noise due to the discreteness of observed galaxies.