
Three-point correlation function of the Lyman-alpha forest

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Abstract

Fluctuations in the UV background (UVB) are thought to affect clustering measurements of the Lyman-alpha forest and may systematically affect Lyman-alpha forest BAO measurements. We investigate the impact of UVB fluctuations on the two- and three-point correlation functions of the forest using the LyMAS method of Peirani and collaborators. We investigate the dependence of the forest-3PCF on triangle shape and scale, and discuss the 3PCF as a diagnostic of the UVB to investigate properties of the IGM.

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