



ASTROPHYSICS SEMINAR

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Gamma ray bursts and CMB data analysis

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Abstract. Gamma ray bursts being the most luminous objects in Universe could be used to measure distances of galaxies. We showed that after proper calibration procedure GRBs could be used as standard candles.

The Cosmic Microwave Background radiation temperature data are analyzed using the Kolmogorov stochasticity parameter. For the data obtained by the WMAP satellite we have estimated the behavior of the Kolmogorov's parameter within an non-Gaussian region, the Cold Spot, which supports its void nature. The Kolmogorov map also enables to obtain the power spectrum for the degree of randomness which can be linked with the correlation in the distribution of voids in the Universe.