STRUCTURE FUNCTION ANALYSIS OF BLAZAR PKS 0716+714

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Abstract

Optical monitoring of the Blazar PKS 0716+714 was preformed on March 5th – 9th 2003 with the 42" Hall telescope at Lowell Observatory in order to study the microvariability of the object. PKS 0716+714 belongs to a subset of active galactic nuclei called Blazars, who share the characteristics of large amplitude continuum variability across all wavelengths, featureless optical continuum, and highly variable polarization. Microvariability is variability within the source on time scales of minutes to hours. In this study we used structure function analysis to look at the characteristic time scales and noise processes present in the light curves. Our results show a mixture of shot and flicker noise with characteristic timescales of 2.5hours.

Category

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