THE INTERACTION OF COHERENT OPTICAL RADIATION AND ULTRASOUND WITH LIMITED FREQUENCY SPECTRUM IN RANDOMLY-INHOMOGENEITY MEDIUMS

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The Bragg diffraction of coherent optical radiation on the ultrasound with limited frequency spectrum in randomly-inhomogeneity mediums is considered. The intensity of the spectrum density diffracted radiation statistical characteristics is calculated. It is shown, that when inhomogeneities radius correlation more less than length of acousto-optic interaction they influence on the efficiency of diffraction is negligible.