**Приложение 2**

**THE OPTIMAL ALGORITHMS EFFICIENCY ANALYSIS**

**FOR ESTIMATING THE ANISOTROPIC TEXTURE ORIENTATION**

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Potential accuracy analysis of the anisotropic texture orientation estimation observed on the background of additive white noise is conducted on the basis of the Cramer-Rao inequality. Brightness function of the anisotropic texture with one dominant direction was approximated by a deterministic two-dimensional harmonic function. Method for analyzing the optimal algorithms efficiency for estimating the anisotropic texture orientation, allowing determining the ultimate capabilities of methods based on the gradient structure tensor is proposed. The method is based on the Gaussian approximation for the components of the gradient structure tensor calculated in the frequency domain.

Keywords: anisotropic texture, optimal algorithm, Gaussian approximation.

**IMPACT ESTIMATION MODEL OF RECEIVE LOCAL NETWORKS STATIONS BUFFERS BLOCKS ON HYBRID HETEROGENEOUS NETWORKS CHARACTERISTICS**

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In this paper we consider a hybrid communication network with a nonuniform incoming messages intensity and access protocol terrestrial subnetwork. The process of blocking buffer receiving stations of local networks that makes up the ground subnet and satellite communications is presented. It is shown that in analyzing the process of inter-regional transfer of information in a hybrid network, you must take into account the impact on network performance. A model assessing the impact of blocking stations receives buffers of local networks and satellite communications on the characteristics of the considered hybrid heterogeneous networks.

Keywords: communication network, hybrid heterogeneous networks.