

**INVESTIGATION OF RADIOSIGNALS PROCESSING ALGORITHMS
IN MULTIPATH COMMUNICATION CHANNELS**

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The possibility of joint correlation processing of signals of multipath communication channel (Rake-algorithm) is investigated.

Theoretical analysis of multipath communication channel (MCC) and Rake-algorithm is carried out. Influence of the main MCC parameters on SNR is studied. Accuracy demands of MCC parameters estimation are defined.

The algorithm of the MCC parameters estimation based on Adaptive Digital Filter application is proposed. Minimum adaptation time is estimated. The estimation accuracy in the case of both permanent and variable MCC parameters is defined.

Advantages and disadvantages of the suggested algorithm are discussed. Recommendations on practical application of the performed investigation results are given.