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**Asymptotically optimal criteria for testing parametric hypothesis on the distribution of a random vector. I.** (Russian. English summary) [[Zbl 1476.62048](#)]  
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Summary: We construct asymptotically optimal criteria for testing two simple hypotheses on the scalar parameter of discrete noise in a combined semicontinuous communication channel for the triangular scheme. Probabilistic characteristics of these criteria are obtained (in particular, asymptotics of the minimal sample size for given error probabilities of two kinds). It is shown that the minimal sample size depends essentially on the channel parameters.

For Part II, see [the author, *ibid.* 6, No. 4, 49–64 (2015; [Zbl 1476.62049](#))].

**MSC:**

[62F03](#) Parametric hypothesis testing  
[94A05](#) Communication theory

Cited in 1 Review

**Keywords:**

combined semicontinuous communication channel; asymptotically optimum criteria; triangular scheme; asymptotically minimal sample size

**Full Text:** [DOI](#) [MNR](#)

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