

## Some comparison theorems for minimax detection of Gaussian stochastic signals

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### Abstract

Minimax detection of Gaussian stochastic signal embedded in white Gaussian noise is investigated. It is assumed that the stochastic signal correlation function belongs to a given set  $\mathcal{A}$ . We are interested in: when it is possible to replace the whole set  $\mathcal{A}$  by a single element  $a \in \mathcal{A}$  without essential loss of performance?

Several comparison theorems allowing such reduction of the set  $\mathcal{A}$  will be presented.