

## ENTROPIC UPPER BOUND FOR BAYES RISK IN THE QUANTUM CASE

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*Abstract:* The entropic upper bound for Bayes risk in a general quantum case is presented. We obtained generalization of the entropic lower bound for probability of detection. Our result indicates upper bound for Bayes risk (in a particular case of loss function – for probability of detection) in a pretty general setting of an arbitrary finite von Neumann algebra. It is also shown under which condition the indicated upper bound is achieved.

**2010 AMS Mathematics Subject Classification:** Primary: 81P15; Secondary: 81P50.

**Keywords and phrases:** Bayes risk, probability of detection, quantum measurement, entropy.

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