

## NON-ASYMPTOTIC MINIMAX RISK FOR HELLINGER BALLS

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*Abstract:* The following intuitively evident result is shown.

Given a probability  $P$  and a radius  $r$ , assume that we have to estimate an unknown law belonging to a sphere with centre  $P$  and radius  $r$  for the Hellinger distance using  $n$  independent identically distributed observations. If the risk is measured by the square of the Hellinger distance, then the observations carry no information and the best estimator is just the centre  $P$  of the sphere.

**2000 AMS Mathematics Subject Classification:** Primary: -; Secondary: -;

**Key words and phrases:** -

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