SUR UN THÉORÈMS DE MINIMAX ET SON APPLICATION AUX TESTS

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Abstract: In this paper we try to extend in some sense the results of Huber and Strassen concerning the tests between two sets which are under two-alternating capacities. We just assume here that those sets are convex and weakly compact (this last assumption may be weakened in good cases). We get non-asymptotic bounds for the errors of our tests and prove that these bounds are asymptotically optimal in the sense of an exponential rate of decrease. These results are applied to the particular case of Hellinger balls: we find very simple tests with good properties which are proved to be useful in estimation theory.

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