On oracle inequality for exponential weighting of ordered smoothers

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Abstract

This paper deals with recovering an unknown vector from noisy data with the help of special family of linear estimates, namely, a family of ordered smoothers. The estimators within this family are aggregated using the exponential weighting method. Our goal is to derive oracle inequalities controlling the risk of the aggregated estimate. Based on probabilistic properties of the unbiased risk estimate, we propose a new method for obtaining oracle inequalities and show that for the exponential weighting we can get better remainder terms than the one in Kneip's oracle inequality [1].

Bibliography

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