1159-00-172 **Wenbo Wu*** (wenbo.wu@utsa.edu). *On sufficient variable screening using log odds ratio filter.*
For high-dimensional data, variable screening is an important step to reduce the scale of the problem, hence, to improve the estimation accuracy and efficiency. In this paper, we propose a new dependence measure which is called the log odds ratio filter under the sufficient variable screening framework. In addition, we propose an ensemble approach to combine the proposed log odds ratio filter with the Kolmogorov filter to achieve supreme performance. We establish the sure screening property of the log odds ratio filter in both marginal screening and sufficient screening methods. Extensive simulations and a real data analysis are provided to demonstrate the usefulness of the proposed log odds ratio filter and the sufficient variable screening procedure. (Received August 04, 2020)