A robust approach to portfolio selection problems and the comparisons to the statistic approach

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Abstract

In spite of a lot of robust approaches to portfolio selection problem, a simple robust approach will be discussed in this article. Some comparisons between the robust approach and the statistic approach are made. Until now in the article it has been found that under some situations the optimal solutions of both approaches will never coincide with each other. And the variance of robust optimal solution is always smaller than that of the statistic model. Since the robust approach is based on a linear model, it can be expected that not only in the sense of portfolio selection problem, but in general, there is some special relationship between robust approaches and statistic aprroaches.