Estimation of the Global Minimum Variance Portfolio in High Dimensions

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Highlights

- The global minimum variance portfolio is estimated using random matrix theory.
- This approach leads to a shrinkage-type estimator which is distribution-free.
- It is optimal in the sense of minimizing the out-of-sample variance.
- The assumption of the existence of the fourth moments is only needed.
- The resulting estimator shows significant improvements to the existent estimators.