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Global Minimum Variance Portfolio Optimisation under some Model Risk: A Robust Regression-based Approach

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Highlights

- We introduce a robust minimum variance portfolio rule under parameter uncertainty.
- We solve for the optimal portfolio using a robust regression.
- Our robust rule is a compromise between the sample and the nave 1/N rules.
- Simulations show that the robust portfolio outperforms its non robust analogue.
- Empirically, our robust rule compares favorably with various competing rules.