Since Hankel matrices are moments of positive continuous functions, they form positive definite quadratic forms.

The estimation of covariance matrices plays a fundamental role in portfolio selection in financial engineering. Recently, a new type of estimators of large-dimensional covariance matrices has been introduced. They are called nonlinear shrinkage estimators in financial engineering [1] and rotationally invariant estimators in physics [2]. The construction of the estimators is based on the idea of James-Stein shrinkage and exact relations between eigenvalues of sample covariance matrix and population covariance matrix. I will briefly recall the main ideas behind the construction and sketch how to generalise it to the case of correlated samples.


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Wednesday, 11 November, 0900 hrs CET

Zoom Konferenzschaltung—Please contact Anas Rahmann (anas.rahman@unimelb.edu.au) for details regarding access