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Mean-variance optimization in a financial market with stochastic correlations

We consider a mean-variance investment problem in a continuous-time brownian motion setting where the stock prices' correlations are stochastic and more specifically are driven by a Wishart process. We construct an optimal strategy by means of solutions of BSDEs (backward stochastic differential equations). We will also give an explicit analytical expression for the optimal portfolio through solutions of matrix Ricatti ODEs.