Bayesian Analysis of High Dimensional Vector Error Correction Model

Supplementary Slides to the Presentation

Paper here: `https://arxiv.org/abs/2312.17061`

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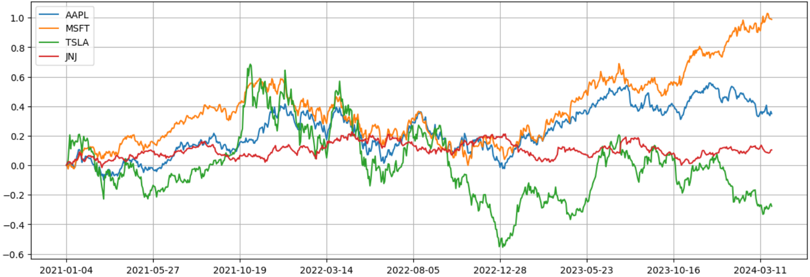
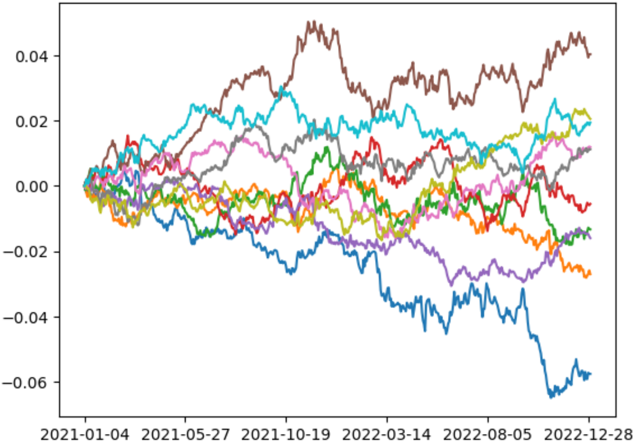
Plot of stock returns

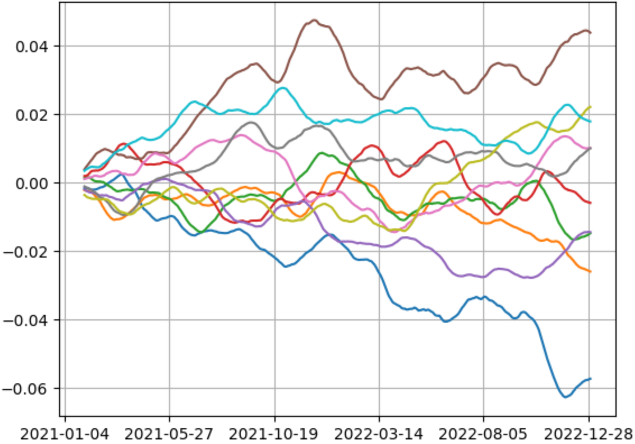
Could you spot which ones are $I(1)$ and which ones are $I(0)$?



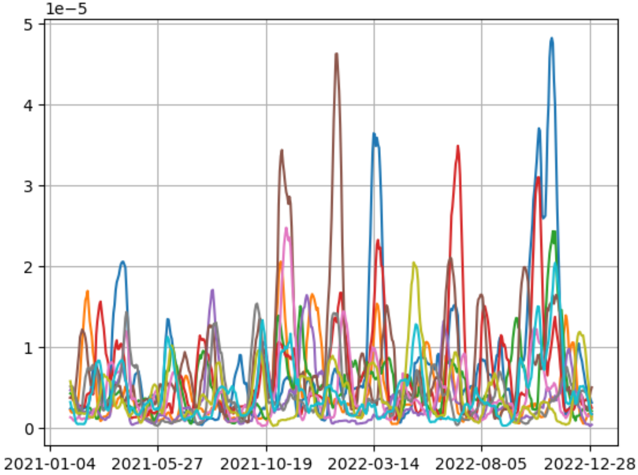
Random Portfolios: random combinations of $I(1)$ processes are still $I(1)$



Random Portfolios: rolling mean

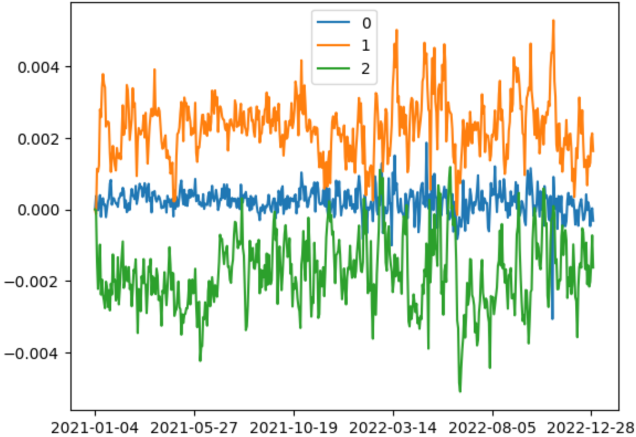


Random Portfolios: rolling variance

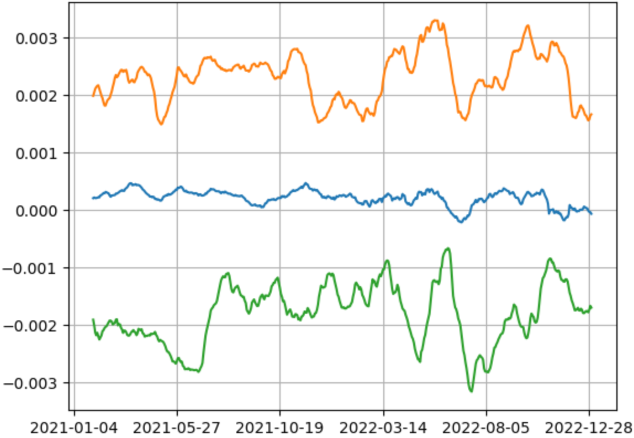


After the derivations of all the models and algorithms ...

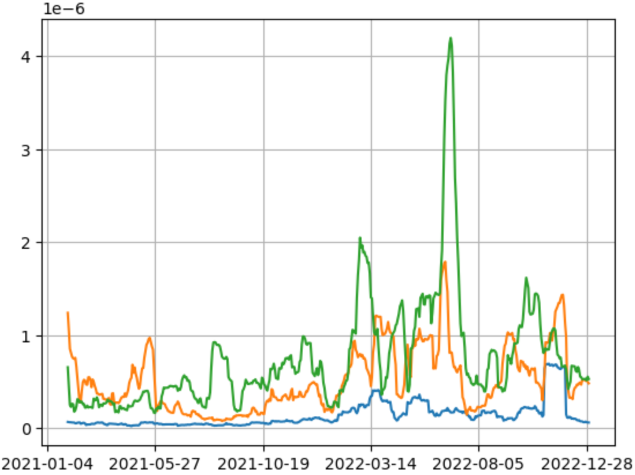
Stationary Portfolios: combinations of $I(1)$ processes become $I(0)$



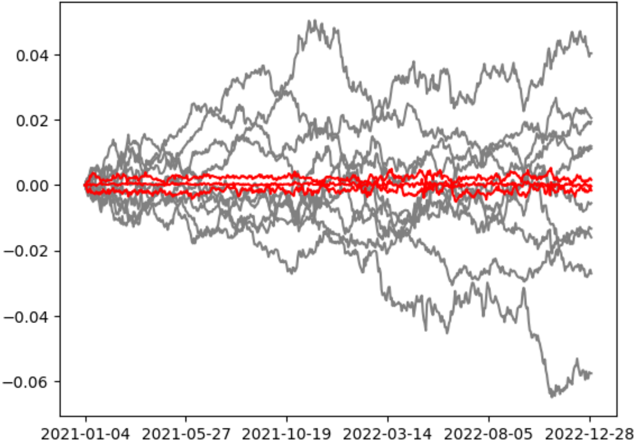
Stationary Portfolios: rolling mean



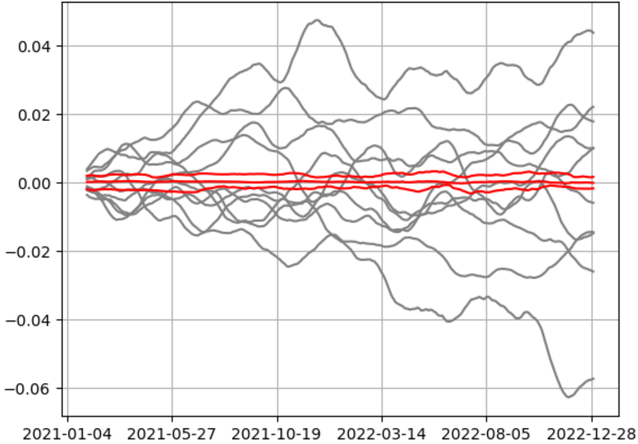
Stationary Portfolios: rolling variance



$I(1)$ versus $I(0)$


0.04
0.02
0.00
−0.02
−0.04
−0.06
2021-01-04
2021-05-27
2021-10-19
2022-03-14
2022-08-05
2022-12-28

Rolling mean into the context



Rolling variance into the context