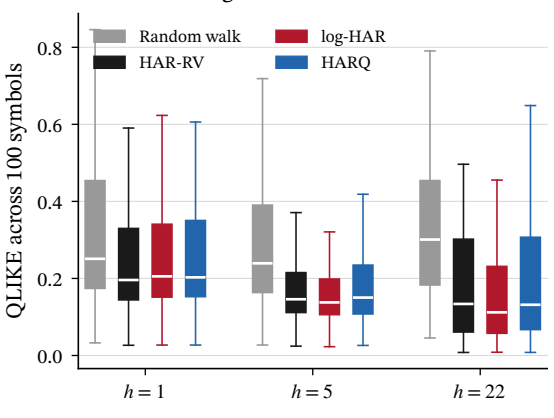
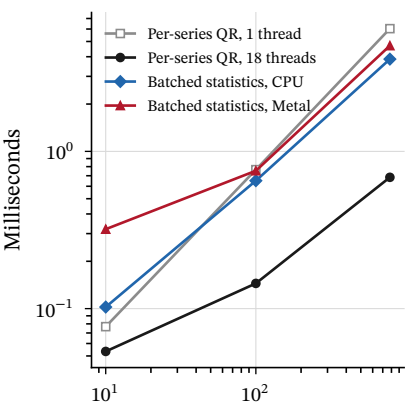

Panel A. Rolling causal forecasts, 2024
Random walk
HAR-RV
log-HAR
HARQ
QLIKE across 100 symbols
0.0
0.2
0.4
0.6
0.8
h = 1
h = 5
h = 22


Panel B. HAR estimation runtime
Per-series QR, 1 thread
Per-series QR, 18 threads
Batched statistics, CPU
Batched statistics, Metal
Milliseconds
10^{0}
10^{-1}
10^{1}
10^{2}
Series ($T = 252$ each)