Stochastic Volatility Example

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This Matlab code demonstrates the stochastic volatility model introduced in Section 8 of our paper "Riemann Manifold Langevin and Hamiltonian Monte Carlo". There are four folders, one for each of the methods we have implemented. In order to run the simulation, open the relevant folder and run the matlab script "StochVol_RMHMC", "StochVol_mMALA", "StochVol_HMC" or "StochVol_MALA". The simulation will run and automatically save the results to the "Results" folder. You may run the simulation multiple times then run the Matlab script "GetStats" which may be found in the "Results" folder. This script will calculate the ESS statistics for each simulation and display averaged results over all of the runs. (Note that each simulation will generate a results file with a size of around 200MB.)