

# STOCHASTIC SYSTEM: A STUDY OF THREE EXAMPLES

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**Abstract:** The study of stochastic systems is usually very difficult even for the calculation of examples. Computer simulations help us to form conjectures. Rigorous proofs come later in [1] for the accelerating convergence on torus and [2] for the Nyström approximation of the largest eigenvalues and the corresponding eigenvectors for large positive definite random matrices. In [3] empirical study strongly suggests the existence of a new invariance in financial market, but the mathematical formulation is still elusive.

## References

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