Hamilton Institute

Oscillators, 1/f noise, and stock market fluctuations

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Abstract

Random fluctuations and noise play an important role in many real-world dynamical systems. In this talk we examine models for the phase jitter in nonlinear oscillators, and the non-Gaussian returns observed in stock market data. Random differential equations with non-white noise are used in both cases.

We also look at Kuramoto's model of a network of coupled oscillators, and demonstrate that the mean field exhibits a type of 1/f phase noise.

Venue: Seminar Room, Hamilton Institute, Rye Hall, NUI Maynooth

Time: 1.00 - 2.00pm (followed by tea/coffee)

Travel directions are available at www.hamilton.ie

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