

Seminário de sistemas dinâmicos e estocásticos

Departamento de Matemática - IMECC - UNICAMP

Integration of coupled stochastic oscillators driven by external random forces

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Resumo:

Studying the influence of random forces on oscillatory dynamical systems has become important in various fields of applied science and engineering. In this work we consider numerical integrators for the effective simulation of coupled stochastic oscillators driven by external white noises. We study the performance of the proposed integrators, including the reproduction of some dynamical properties of coupled stochastic harmonic oscillators and paths of nonlinear stochastic oscillators in general. Computer experiments illustrate the theoretical findings and the advantages of the proposed methods in comparison with other conventional ones.

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Local: Sala 321 do IMECC.

Consulte a programação em [www.ime.unicamp.br/ssde]