Theoretical Statistics and Mathematics Unit

Monday Colloquium

Date: December 26, 2016 Time:4.15 p.m.

Venue: L-Infinity, Stat-Math Unit (5th Floor, A.N. Kolmogorov Bhavan)

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Hamiltonian flows

Abstract

I will start by recalling how Newton's Second Law of Motion leads to Hamiltonian flows on the phase space of a mechanical system. In general studying a particular mechanical system, for instance the three-bod problem, is very hard. On the other hand modern symplectic topology has had some success in describing common properties of all Hamiltonian flows. A famous example here is the Arnold conjecture bounding below the number of periodic orbits. It is an important open question to determine statistics for the behavior of a typical system.

ALL ARE CORDIALLY INVITED