KOÇ UNIVERSITY

Science – Math Seminar

Speaker: Leonid Piterbarg
Department of Mathematics
University of Southern California

Date: Tuesday, May 3, 2005
Time: 16:45 (Tea and cookies will be served at 16:30 in front of SCI Z24)
Place: Science Building, Room Z24

Title: Lyapunov exponent for a stochastic flow describing inertial particles and an explosive ergodic diffusion

Abstract:

An exact formula for the top Lyapunov exponent (LE) is proven for the stochastic flow that describes motion of inertial particles in one dimension. The proof exposes an interesting example of explosive diffusion which nevertheless is ergodic with invariant density described by the stationary solution of the corresponding Fokker-Planck equation. A similar approach to motion in 2D leads to an approximate formula for LE which is in good agreement with simulations and previous theoretical considerations.

Please visit http://sci-math.ku.edu.tr/ for a schedule of upcoming Science - Math seminars.