1077-60-2529 **Jinqiao Duan*** (`jduan@ipam.ucla.edu`), 460 Portola Plaza, Box 957121, Los Angeles, CA 90095-7121. *Impact of Non-Gaussian Random Boundary Conditions on a Burgers-Boussinesq System.*

Complex systems are sometimes under the influence of environmental fluctuations. To gain understanding of the impact of random boundary conditions on system evolution, a Burgers-Boussinesq fluid system is considered.

A numerical procedure is presented to simulate this system with random Gaussian (Brownian motion) or non-Gaussian ($\alpha-$stable Lévy motion) boundary conditions. To quantify the impact of noise, exit time and their distributions are computed with varying parameters such as noise intensity and α values. Certain dependence of exit time on these parameters are characterized, and some differences in the impact between Gaussian and non-Gaussian noises are observed.

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