Mathematical Sciences Colloquium Series
Fall 2022

UTEP

Dr. Adina Oprisan

New Mexico State University

📍 **In person at Bell Hall 130 and online via Zoom**
Click on this announcement to access the Zoom link

📅 **Friday, October 28** 🕒 **3pm**

Average and diffusion approximation principles

Abstract

Weak convergence techniques provide paths in analyzing various stochastic approximations of dynamical systems subject to the effect of small random perturbations. In both average and diffusion approximations, the smallness of the effect of the perturbations is ensured by quick oscillations of the random perturbation process. Limit theorems generalizing classic types such as: the law of large numbers, the central limit theorem, and large deviations, are developed for systems perturbed by ergodic Markov and semi-Markov processes.

For further information, please contact Dr. Emil Schwab, eschwab@utep.edu