



Differential Equations and Applied Math Seminar

Dr. Nasrin Sultana, Texas State University

11am-12pm April 21st, 2017

330 Derrick Hall

Title: Bounded Solution of a Volterra Integro-differential Equation

Abstract: In this article the existence of a continuous and bounded solution of a nonlinear Volterra integro-differential equation is studied. In the analysis, Schaefer's fixed point theorem and Liapunov's direct method are employed. The existence of a continuous and bounded solution is shown using Schaefer's fixed point theorem, which requires an a priori bound on all such solutions of an auxiliary equation. Liapunov's direct method is then applied to obtain such an a priori bound.

Interested faculty and graduate students are encouraged to attend.