
SUMAIRA REHMAN, Toronto Metropolitan University

Initial value problems for nonlinear higher-order fractional differential equations

In this talk, I'll present results on the existence and uniqueness of solutions or local solutions for initial-value problems of nonlinear higher-order Riemann-Liouville type fractional differential equations with nonlinearities that may not be continuous. Some topological tools like Schauder fixed point theorem, Banach contraction principle and Weissinger's uniqueness fixed point theorem are employed to obtain these results.

This is joint work with Professor Kunquan Lan at Toronto Metropolitan University and Professor Jianhong Wu at York University.