



The University of Western Ontario

Faculty of Science

Department of Applied Mathematics

APPLIED MATHEMATICS COLLOQUIUM

Date: Wednesday, September 17, 2008

Time: 2:30pm

Location: Middlesex College, Room 204

Nonlinear Boundary Value Problems involving Time-delays and Impulses

Prof. Wei Ding
Department of Applied Mathematics
Shanghai Normal University

Abstract:

In this talk, we discuss several different types of nonlinear boundary value problems. By using the method of lower- and upper- solutions coupled with monotone iterative technique, some existence theorems of extreme solutions are presented. However, the classical definition of upper- and lower- solutions was applied to limited cases. In this talk, we introduce a new concept of lower- and upper- solutions, and generalize the iterative technique to consider different kinds of boundary value problems.