

Mathematics Graduate Seminar

First Speaker: Fuxiang Li
Memorial University

Thursday, March 16, 2017
1:00p.m., HH-3017

*Dynamics analysis of an HTLV-1 infection
model with delayed CTL immune response*

Abstract:

In this talk, we propose an HTLV-1 infection model with mitotic division of actively infected cells and delayed CTL immune response. By constructing suitable Lyapunov functional and using LaSalle invariance principle, we investigate the global stability of the infection-free equilibrium and the CTL-inactivated infection equilibrium of the system. Our results show that the time delay can change stability behavior of the CTL-activated infection equilibrium and lead to the existence of Hopf bifurcations. Finally, numerical simulations are carried out to illustrate the applications of the main results.

Second Speaker: Nasser Heydari
Memorial University

Thursday, March 16, 2017
1:30p.m., HH-3017

A very short introduction to symplectic manifold

Abstract:

In this talk, we give basic ideas of symplectic vector spaces and use them to define symplectic manifolds as well as discuss some properties of symplectic manifolds.