

Applied Dynamical Systems Seminar

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**Monday, November 19, 2012
12:00p.m., HH-3017**

*Qualitative analysis of a model for co-culture
of bacteria and amoebae*

Abstract:

In this talk, we analyze a mathematical model for co-culture of bacteria and amoebae. The model consists of two scalar ordinary differential equations, which describe the interaction between bacteria and amoebae. We first give the sufficient conditions for the uniform persistence of the model, then we prove that the model can undergo Hopf bifurcation and Bogdanov-Takens bifurcation for some parameter values, respectively.

Coffee and cookies will be served.

Seminar website:

<http://www.math.mun.ca/~xiangshengw/seminars.html>