

**RYERSON UNIVERSITY
DEPARTMENT OF MATHEMATICS
BIOMATHEMATICS & FLUIDS SEMINAR**

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Date: Thursday, November 22, 2012

Time: 2:10

Location: ENG 210

**Traveling waves of the nonlocal Fisher-KPP
equation**

Abstract:

We consider traveling waves of the nonlocal Fisher-KPP equation. It is recently shown that narrow nonlocal interactions do not change the monotonicity of wave profiles but some wide interactions do. We found a critical value of the rate of nonlocal interactions which corresponds to an eigenvalue problem and proved that it is the threshold for the existence of monotone traveling waves. Further, such monotone waves are shown to be unique up to translation. The methods are also extended to a competition system with time delay. This talk is based on joint works with Jianhong Wu and Xiaoqiang Zhao.

ALL FACULTY, STAFF, STUDENTS AND GUESTS ARE WELCOME TO ATTEND

LIGHT REFRESHMENTS WILL BE PROVIDED