

## APPLIED MATHEMATICS COLLOQUIUM

Date: Monday, July 13, 2015

Time: 2:30 – 3:30 p.m.

Location: Middlesex College Room 204

### **Mathematical modeling for intracellular transport and binding of HIV-1 gag proteins**

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#### **Abstract:**

In this talk, the applications of mathematics in the research of complex diseases are introduced. Specifically, I first present a modeling study for the intracellular trafficking and assembly of the HIV-1 Gag proteins. Then, I present the analysis of pathogenic mechanisms of influenza A virus (IAV) by combining mathematical model-based optimization and dynamical analysis.