

## APPLIED MATHEMATICS COLLOQUIUM

Date: Wednesday, September 17, 2014

Time: 2:30 – 3:30 p.m.

Location: Middlesex College Room 204

### **Time of death estimation from temperature readings only: a Laplace transform approach**

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#### **Abstract:**

Time of death estimation is a fundamental problem in forensic medicine. A popular estimation method is by body cooling. In this talk we propose a compartment model for body cooling and that includes the well-known Marshall-Hoare model as a particular case. Using the Laplace transform, we give a new method for estimating the time of death from temperature readings only. We present the results of numerical simulations applied to theoretical and field data to show the accuracy of the proposed method.