

# **APPLIED MATHEMATICS COLLOQUIUM**

**Michael C Mackey  
(McGill University)**

## **Understanding, Treating, and Avoiding Human Hematopoietic Disease: Better Medicine through Mathematics?**

Abstract: In this talk, I will outline the results of work we are conducting on the modeling of the regulation of human blood cell production, and the uses we have put this modeling to, in the understanding and treatment of hematopoietic diseases. In the last part, I will discuss current work to minimize the hematopoietic side effects of chemotherapy. All of the models on which this work is based are framed as nonlinear differential delay equations, sometimes with state-dependent delays.

**Monday April 28, 2014  
4:30 PM  
Building E17, Room 122**

*Tea at 3:30-4:30PM in Building E17, Room 401A  
(Math Dept. Common Room)*

Applied Math Colloquium: <http://www-math.mit.edu/amc/spring14/>  
Math Department: <http://www-math.mit.edu>

Massachusetts Institute of Technology  
Department of Mathematics  
Cambridge, MA 02139



Massachusetts Institute of Technology