

# APPLIED MATHEMATICS COLLOQUIUM

## From Cells to Tissue: Coping with Heterogeneity when Modelling the Electrophysiology of the Human Heart

**Kevin Burrage**  
(University of Oxford and Queensland  
University of Technology, Brisbane, Australia)

Abstract: In biology, as in many sciences, stochasticity manifests itself at many temporal and spatial scales. How do we capture this inherent variability? How do we use it? When do we ignore it? How do we validate? This talk makes some attempts to answer these deep issues in the context of modelling and simulating the electrophysiology of the heart.

This is joint work with Blanca Rodriguez, Annamaria Carusi, David Kay, Alfonso Bueno-Orovio, Ciara Dangerfield, John Walmsley (Oxford) and Esther Pueyo (Zaragoza).

**Monday May 14, 2012**

**4:30 PM**

**Building 2, Room 105**

*Refreshments are available in Building 2, Room 290  
(Math Common Room) between 3:30 – 4:30 PM*

Applied Math Colloquium: <http://www-math.mit.edu/amc/spring2012>

Mathematics Department: <http://www-math.mit.edu>

To sign up for Applied Mathematics Colloquium announcements, please contact [avisha@math.mit.edu](mailto:avisha@math.mit.edu)



Massachusetts Institute of Technology  
Department of Mathematics  
Cambridge, MA 02139