



UNSW
THE UNIVERSITY OF NEW SOUTH WALES

DEPARTMENT OF APPLIED MATHEMATICS APPLIED SEMINAR SERIES 2007

The Seminar Series of the Department of Applied Mathematics, UNSW, Sydney is dedicated to the announcement, dissemination and discussion of research in mathematics and its applications. A fundamental aim of the Seminar Series is to feature lectures that inform in a manner that makes the subject accessible to the audience, including non-specialists.

SPEAKER: Dr John Murray, School of Mathematics and Statistics, UNSW, Sydney; & National Centre in HIV Epidemiology and Clinical Research.

TITLE: Mathematical modeling for real world systems: hepatitis B virus – a case study

Abstract: This talk will present some of my recent work with various research groups on hepatitis B virus (HBV), and how different components of the bodys immune system try to clear this infection. Currently approximately 400 million people are infected with HBV. Antiviral therapies against HBV are mostly unsuccessful, so a better understanding of the processes the immune system employs in its fight against this disease can only be to our advantage.

Another aspect of my talk will be to comment on how my experience in this “real world problem correlates with our approach in what we teach our students, particularly in the Schools 3rd year course MATH3041 Mathematical Modeling for Real World Systems. This course comprises sections on Dynamical Systems, Optimization, and Statistics. How each of these played a role in my HBV research will be discussed.

TIME AND VENUE: 2pm, 18 April 2007, Room 4082, Red Centre.



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