IMS Public Lecture

What is Mathematical Biology and How Useful is it?

Speaker: **Professor Avner Friedman**
Director , Mathematical Biosciences Institute
Ohio State University

Date: **Thursday, 13 December 2007**

Time: **6:30pm - 7:30pm**

Venue: **LT31, Block S16, Science Drive 1**
National University of Singapore, Singapore 117543

FREE ADMISSION

About the Speaker

Professor Avner Friedman has made important contributions, both in theory and applications, to partial differential equations, stochastic differential equations and control theory. His career, especially during the past two decades, epitomizes a personal mission and relentless drive in bringing the tools of modern analysis to bear in the service of industry and science.

He was the Director of the Institute for Mathematics and its Applications at Minneapolis from 1987 to 1997 and has been the Director of the Mathematical Biosciences Institute of the Ohio State University since 2001. He is also Distinguished University Professor at the Ohio State University.

He has served on many U.S. national boards and advisory committees. He has also served and continues to serve on the editorial boards of numerous leading journals in analysis, applied mathematics and mathematical physics. His prolific research and scholarly output has resulted in more than 400 publications, written singly and jointly, and 20 books. Among the honors and awards he has received for his wide-ranging contributions are the Stampacchia Prize, NSF Special Creativity Award, and membership of American Academy of Arts and Sciences and of the U.S. National Academy of Sciences.

As a founding member of the Scientific Advisory Board of the NUS Institute for Mathematical Sciences, he has contributed to the development and success of the Institute since its inception in 2000.

Abstract

Biological processes are very complex, and mathematical models of such processes are at best just a crude approximation. Nevertheless one can gain some useful knowledge from the models. In this talk, I shall give examples of biological and biomedical problems that have been addressed by mathematical models. The examples will be from areas as diverse as wound healing, hemodialysis, tuberculosis, and cancer.

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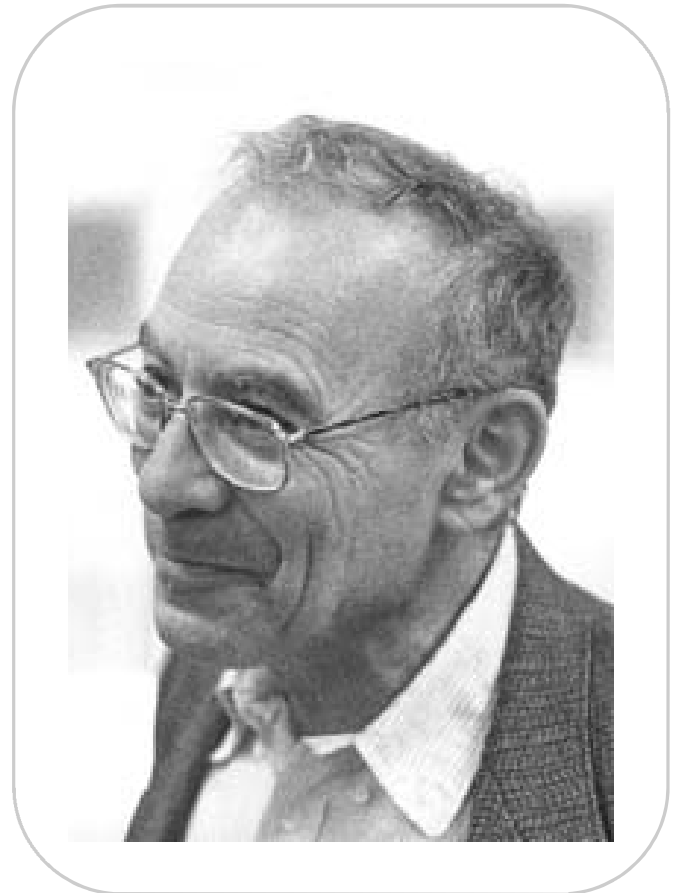
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