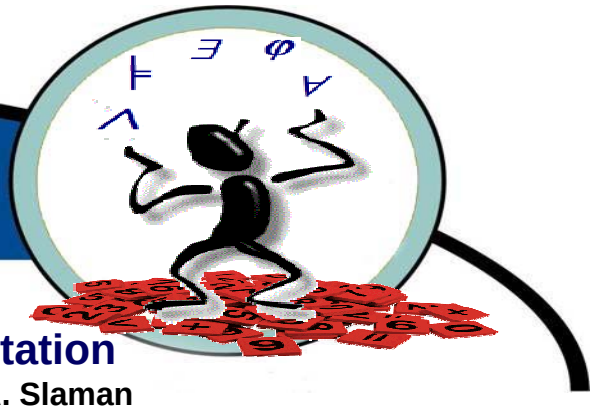
IMS Public Lecture



Logic and Computation

Invited Speaker: **Professor Theodore A. Slaman**
University of California, Berkeley, USA

Date: **Monday, 1 August 2005**
Time: **6:30 p.m. – 7:30 p.m.**
Venue: **LT 33 (SoC 1, #02-36)**
School of Computing, 3 Science Drive 2
National University of Singapore
Singapore 117543

FREE ADMISSION

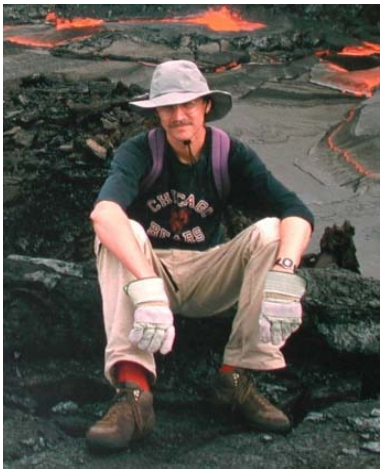
Abstract

Two of the great virtues of Mathematics are its wide applicability and its precise verifiability. In Mathematics, we prove that our conclusions are correct and calculate accurate answers to quantitative questions.

What happens to us when the methods of proof and computation are insufficient? In the 1930's, K. Gödel gave fascinating ways to generate true statements in elementary arithmetic which cannot be proven. Proof and computation are reflections of each other, and a similar incompleteness exists in the methods of computation.

There is a detailed and beautiful structure supporting mathematical methodology. In this talk, the speaker will discuss his favorite aspects of this structure. The one that he likes the best is the border between finite and infinite, but there are others more surprising.

About the Invited Speaker



Professor Theodore Slaman received his Bachelor's Degree from Pennsylvania State University, his Ph.D. in Mathematics from Harvard University in 1981 and joined the University of Chicago thereafter. He was promoted to full Professor at the University of Chicago in 1987 and joined University of California, Berkeley in 1992 where he is currently the Chair of Department. He has made fundamental contributions to the field of recursion theory and was a speaker at the International Congress of Mathematicians in 1990 (Toyko, Japan).

Organized by **Institute for Mathematical Sciences, NUS**

in conjunction with **Department of Mathematics, NUS**

and **Singapore Mathematical Society**