



Faculty of Mathematics and Computer Science  
The Weizmann Institute of Science

## *Distinguished Lecturer Series*

Sponsored by the Arthur and Rochelle Belfer  
Institute of Mathematics and Computer Science

### **Professor Moshe Vardi**

Department of Computer Science  
Rice University

*will speak on*

## **And Logic Begat Computer Science: When Giants Roamed the Earth**

### *Abstract*

During the past fifty years there has been extensive, continuous, and growing interaction between logic and computer science. In fact, logic has been called "the calculus of computer science". The argument is that logic plays a fundamental role in computer science, similar to that played by calculus in the physical sciences and traditional engineering disciplines. Indeed, logic plays an important role in areas of computer science as disparate as architecture (logic gates), software engineering (specification and verification), programming languages (semantics, logic programming), databases (relational algebra and SQL), artificial intelligence (automated theorem proving), algorithms (complexity and expressiveness), and theory of computation (general notions of computability). This non-technical talk will provide an overview of the unusual effectiveness of logic in computer science by surveying the history of logic in computer science, going back all the way to Aristotele and Euclid, and showing how logic actually gave rise to computer science.

***The lecture will take place in the Lecture Hall, Room 1, Ziskind Building  
on Monday, May 24, 2004  
at 14:00***

Light refreshments will be served after the lecture