



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 Hillel Furstenberg

Department of Mathematics
The Hebrew University

will speak on

What is Ergodic Ramsey Theory?

Abstract

Ramsey Theory treats the phenomenon that for certain structures (complete graphs, arithmetic progressions, flat varieties in vector spaces, etc.) a "substantial" portion of the structure, necessarily contains a smaller scale substructure of the same type. When "substantial" is characterized by "density" it is natural to relate the phenomenon in question with properties of sets of positive measure in a measure space. Ergodic theory treats measure spaces acted upon by groups of measure preserving transformations. We shall describe how ergodic theory has been used to solve problems in Ramsey theory, and how, reciprocally, Ramsey theory has led to the discovery of new phenomena in ergodic theory.

***The lecture will take place in the Lecture Hall, Room 1, Ziskind Building
on Tuesday, March 30, 2004
at 11:00***

Light refreshments will be served after the lecture