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 David Mumford
Division of Applied Mathematics
Brown University

will speak on

Mathematical Approaches to Optimal Deformations Between Planar Shapes

Abstract
In the last few years, the idea of putting a Riemannian metric on the space of shapes has been proposed. This space is possibly the simplest infinite dimensional truly nonlinear space. Psychophysically, it seems as though we have a quite clear idea of what "similarity" of shapes means, i.e. that we use some such metric. But THREE families of metrics have arisen, based on three quite distinct approaches. I will discuss all of them and report on what is known, though it looks as though we are just beginning the exploration of the geometry which each brings to shape space.

The lecture will take place in the Dolfi and Lola Ebner Auditorium, on campus on Tuesday, June 1, 2004 at 11:30
A light lunch will be served after the talk