Geometry Seminar
October 18, 2005, Tuesday, 6:00 p.m.
Room 613, Courant Institute
251 Mercer Street, New York

The geometry of convex polyhedra

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Abstract

I will start by discussing various problems on surfaces of convex polyhedra such as the structure of shortest paths and geodesics, cut locus, isometric embeddings (realizations of surfaces), etc. I will try put the results into historical perspective, by showing the connection to the smooth case as a motivation. In the second part of the talk I will outline my joint work with Ezra Miller on non-overlapping unfoldings of convex polyhedra (of any dimension), and how these can be obtained algorithmically by using the cut locus construction.

For further information contact {pach,pollack}@cims.nyu.edu, or visit our website: http://www.math.nyu.edu/seminars/geometry_seminar.html