

Geometry Seminar
Tuesday, March 09, 2010
Room 201 WWH at 6:00 P.M.

New Methods for Unfolding Convex Polyhedra

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The surface of a convex polyhedron can be cut open and flattened to the plane as a simple polygon. In particular, the unfolding does not self-overlap. So the polygon may be cut out of paper and folded to the convex polyhedron.

Two methods were known to obtain such an unfolding of a convex polyhedron, the source and the star unfolding, both based on shortest paths from a point. In joint work with Jin-ichi Itoh and Costin Vilcu, we have generalized these unfoldings to be based on closed curves on the surface rather than based on points. This yields two new general methods for unfolding any convex polyhedron.

For more information please visit the seminar website at:
http://www.math.nyu.edu/seminars/geometry_seminar.html.