Geometry Seminar
Tuesday, March 16, 2010
Room 201 WWH at 6:00 P.M.

A Constant-Factor Approximation Algorithm for TSP with Neighborhoods in the Plane

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In the Euclidean TSP with neighborhoods (TSPN) problem we seek a shortest tour that visits a given set of n *neighborhoods*. The Euclidean TSPN generalizes the standard TSP on points.

We present the first constant-factor approximation algorithm for TSPN on an arbitrary set of disjoint, connected neighborhoods in the plane. Prior approximation bounds were $O(\log n)$, except in special cases. Our approximation algorithm applies to arbitrary connected neighborhoods of any size or shape, as long as they are disjoint (or moderately overlapping).

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