DIFFERENTIAL GEOMETRY/PDE SEMINAR

Tuesday, October 29, 2013
LOW 111
2:30PM–3:30PM ?

Distance Preserving Embeddings for Riemannian Manifolds from Samples

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Algorithms for finding low dimensional embeddings of manifold data have gained popularity in the last decade. However, a systematic sample analysis of manifold embedding algorithms largely eludes researchers. Here we present an algorithm that, given access to just a finite size sample, embeds the underlying n-dimensional manifold into R^d (where d only depends on some key manifold properties such as its intrinsic dimension, volume and curvature) that guarantees to approximately preserve all the underlying interpoint geodesic distances.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, `www.math.washington.edu`, follow the link **Seminars, Colloquia, and Conferences**).