

16<sup>th</sup> Annual Ulam Colloquium Department of Mathematics University of Florida

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The Shape of Data

**ABSTRACT:** The problem of extracting knowledge and understanding from large and complex data sets is one of the fundamental intellectual challenges for the mathematical sciences. One approach to this is to use the notion of the "shape" of a data set, as encoded by a metric, as an organizing principle for data. Since topology is the mathematical discipline which concerns itself with the study of shape, it is only natural that methods from topology should be ported into the study of data. This transfer has in fact been taking place over the last 10-15 years, and we will discuss some of the ideas which have come up, with examples.

Introduced by David Norton Vice President for Research University of Florida



4:05-4:55 pm February 24, 2014 LIT 101 Refreshments follow in LIT 339