Can you hear the shape of the market?

Gregory Leibon
Dartmouth College

Thursday, February 26, 2009
007 Kemeny Hall, 4:00 pm
(Tea 3:30 pm 300 Kemeny Hall)

Abstract

In this talk, a case study will be presented describing how various tools from geometry can be used to understand and mine data. In particular, we look at the role that spectral geometry, topology, and conformal geometry play in an analysis of the Vulcan economy. We then explore whether what we have learned from our exploration of the (relatively simple) Vulcan economy can help us understand the (much more complex) Earth economy. This analysis will closely resemble the one performed in:

G. Leibon, S. Pauls, D Rockmore, R Savell, Topological Structures in the equities market network, Proceedings of the National Academy of Sciences of the United States of America, Vol. 105, No. 52. (30 December 2008), pp. 20589-20594.

This talk should be accessible to graduate students.