



Speaker: Liviu Nicolaescu
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Thursday, September 4, 2014
2:00 PM
125 Hayes-Healy Hall

Title: The Gauss-Bonnet theorem: a probabilistic perspective

Abstract:

We prove that the Euler form of a metric connection on a real oriented vector bundle E over a compact oriented manifold M can be identified, as a current, with the expectation of the random current defined by the zero-locus of a certain random section of the bundle. We also explain how to reconstruct probabilistically the metric and the connection on E from the statistics of random sections of E . This is joint work with Nikhil Savale.