Title: Maps of Degree 1 and Critical Points.

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007 Kemeny Hall, 3:30PM
Tea 3:00PM 300 Kemeny Hall

Abstract

Given a map of degree 1 of closed oriented manifolds, it is known that the domain of the map is more "massive" than the range. For example, the map induces epimorphisms in homology and fundamental groups. So, it is reasonable to conjecture that minimal number of critical points of the domain is not less than that of the range (of the map of degree 1). It is an open question whether the minimal number of critical points is a homotopy invariant of a manifold. So, we pose a homotopy invariant version of the previous conjecture: the Lusternik-Schnirelmann category of the domain is not less than that of the range.

In the talk I want to discuss the current status of the conjectures.

This talk should be accessible to graduate students.