COLLOQUIUM

UNIVERSITY OF PITTSBURGH

FRIDAY, MARCH 24, 2017

704 THACKERAY HALL

3:30 P.M.

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INTERSECTION THEORY AND TWISTED COHOMOLOGY

ABSTRACT: Intersection theory is one of the basic constructions in differential topology. Via Poincare duality it can be studied in terms of the cup product in cohomology. However this does not apply to intersection theory in infinite dimensional manifolds such as loop spaces and path spaces. The study of this intersection theory is known as "String topology". In this lecture I'll talk about recent results that show that one can indeed study this intersection theory using twisted (or "parameterized") cohomology. This applies to both the string topology of manifolds and the string topology of classifying spaces of Lie groups, and we describe a resulting duality relationship between these theories.

Refreshments served at 3:00 p.m.
in the Math Dept. COMMON ROOM, Thackeray 705