Stony Brook University
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Doctoral Defense Announcement

Abstract

Invariants of Real Vector Bundles

By

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For a compact smooth manifold with corners (or finite CW-complex) X, we can prescribe a finite set of spin or spin^h manifolds (possibly with boundary) mapping into it so that every real vector bundle over X is determined, up to stable equivalence, by the Dirac indices of the real vector bundle when pulled-back onto those prescribed spin or spin^h manifolds. Our proof features a thorough study of indices of Dirac operators on spin^h manifolds and a general duality between cycles and cocycles.

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