



2007 Seminar Series

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Friday, April 13, 2007

Time: 3:00 PM

Room: BSE 2.102

Bundles, Operator Algebras, and K-theory

Abstract: The bundles that occur naturally in functional analysis are not necessarily locally trivial. Dixmier and Douady have shown that a continuous bundle with fiber an infinite dimensional separable Hilbert space H over a compact metric space does not need to be trivial, even though the unitary group of H is contractible.

Similar phenomena appear in the theory of operator algebras. The operator algebras with Hausdorff primitive spectrum are known to be isomorphic to algebras of sections in certain continuous bundles which are typically not locally trivial. We plan to give a gentle introduction illustrated by examples to the K-theory methods used in the study of these bundles.