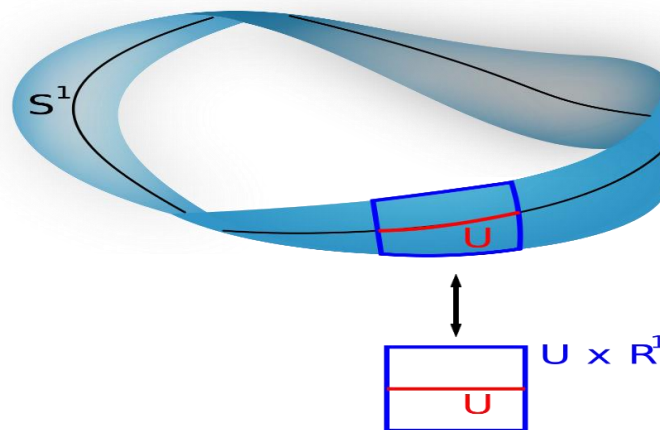


Graduate Mathematics Seminar

Clifford Modules and Vector bundles

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Abstract: Clifford algebras are used in a variety of different contexts. The purpose of this talk is to highlight their use in the construction of generators in the K theory of compact topological spaces. We begin by explaining what K groups are and the K theory of topological vector bundles. We then focus on the construction of then idempotent Clifford modules and show how we can use them to get generators of the K groups, more specifically Thom classes and orientation classes and Bott classes. The Clifford modules we will use to construct these generators will be constructed from the use of primitive idempotent elements in the algebra itself. This talk has a little bit of everything, Algebra, Topology, Algebraic topology, Differential Geometry, Vector bundles, and analytical tools. (We won't explicitly talk about but are present in the entire theory itself.)

When: Monday, February 7, 2022, 6:00 – 7:00 pm

Where: Zoom (Link: <https://csuci.zoom.us/j/83072598082>)

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