
BEN WILLIAMS, UBC

Looking for extraordinary involutions

If X is a topological space with a self-map $\lambda : X \rightarrow X$ of order 2 and A is a bundle of matrix algebras (a topological Azumaya algebra) over X , then a λ -involution of A is an isomorphism of bundles of algebras $\sigma : A \rightarrow \lambda^* A^{\text{op}}$. The structure (A, σ) may be locally isomorphic to a trivial algebra $\text{Mat}_{n \times n}(\mathbb{C}) \times X$ with some involution, in which case σ is said to be of ordinary type. In this talk, I will explain the algebraic topology underlying the construction of more exotic examples of involutions.