Variants of K-theory and connections with noncommutative geometry and physics

Jonathan Rosenberg University of Maryland

${\bf Abstract}$

The topology literature is full of different variants of topological K-theory: K, KO, KSp, KSC, KR, and twisted versions of all of these. We will explain what these are, how they arise from noncommutative geometry, and how they have recently arisen in physics from the classification of D-branes in string theory.