Abstract

In 1972, Jacques Tits proved a remarkable and surprising dichotomy: for any subgroup G of the linear automorphism group of a finite dimensional complex vector space, either G is virtually solvable, or G contains a free group of rank two. Tits' result has many applications in dynamical system, Diophantine geometry, knot theory, topology, algebraic geometry and other fields. In this talk we explore a possible extension of Tits Alternative to noncommutative spaces.