

Ample groupoids, topological full groups, algebraic K-theory spectra and infinite loop spaces

Xin Li

Topological groupoids describe orbit structures of dynamical systems by capturing their local symmetries. The group of global symmetries, which are pieced together from local ones, is called the topological full group. This construction gives rise to new examples of groups with very interesting properties, solving outstanding open problems in group theory. This talk is about a new connection between groupoids and topological full groups on the one hand and algebraic K-theory spectra and infinite loop spaces on the other hand. Several applications in the context of homological invariants will be discussed. Parts of this connection already feature in work of Szymik and Wahl on the homology of Higman-Thompson groups.