

Projective representations of finite groups and the Brauer group of a field

Abstract

Every irreducible projective representation of a finite group parametrizes a simple quotient of a twisted group algebra which represent a class in the Brauer group of the center. The classes of the Brauer group of a field represented by these algebras form a subgroup of the Brauer group of K known as the projective Schur group. We give a homological characterization of the projective Schur group. This answer a question of Eli Aljadeff and Jack Sonn.

Joint work with Eli Aljadeff.