

Year: 2011

Vol.: 78

Fasc.: 2

**Title:** Absolutely indecomposable representations of a twisted group algebra of a finite  $p$ -group over a field of characteristic  $p$

**Author(s):** Leonid F. Barannyk

Let  $G$  be a non-cyclic finite  $p$ -group and  $K$  an infinite field of characteristic  $p$ . For every 2-cocycle  $\lambda \in Z^2(G, K^*)$  such that the twisted group algebra  $K^\lambda G$  is not uniserial, we find the integers  $m \geq 1$  for which  $K^\lambda G$  has infinitely many absolutely indecomposable representations of dimension  $m$ . The main results of the paper imply a solution of the second Brauer–Thrall conjecture for the twisted group algebras  $K^\lambda G$ , under some assumption on  $G$  and  $K$ .

**Address:**

Leonid F. Barannyk  
Institute of Mathematics  
Pomeranian University of Słupsk  
Arciszewskiego 22b  
76-200 Słupsk  
Poland