

Rationality of blocks of quasi-simple finite groups

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Abstract

The Morita Frobenius number of an algebra is the number of Morita equivalence classes of its Frobenius twists. Morita Frobenius numbers were introduced by Kessar in 2004 in the context of Donovan's Conjecture in block theory. I will present the latest results of a project in which we aim to calculate the Morita Frobenius numbers of the blocks of quasi-simple finite groups. I will discuss the connection between our methods and a recent result of Bonnaf-Dat-Rouquier, and explain the relationship between Morita Frobenius numbers and Donovan's Conjecture.