1172-18-128

M. Müller* (monique@ufsj.edu.br), DEMAT, Universidade Federal de São joão del-Rei, Praça Frei Orlando, 170, São João del-Rei, MG, Brazil, and Y. Morales, J. Plavnik, A. Ros Camacho, A. Tabiri and C. Walton. Algebraic structures in group-theoretical fusion categories.

It was shown by Ostrik and Natale that a collection of twisted group algebras in a pointed fusion category serve as explicit Morita equivalence class representatives of indecomposable, separable algebras in such categories. We generalize this result by constructing explicit Morita equivalence class representatives of indecomposable, separable algebras in group-theoretical fusion categories. This is achieved by providing the 'free functor' Φ from a pointed fusion category to a group-theoretical fusion category with a monoidal structure. Our algebras of interest are then constructed as the image of twisted group algebras under Φ . We also establish a Frobenius monoidal structure on Φ , so our algebras are Frobenius algebras in a group-theoretical fusion category, and like twisted group algebras in the pointed case, they also enjoy several good algebraic properties. (Received August 23, 2021)