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Henry J Tucker* (htucker@ucr.edu). *Frobenius-Schur indicators and Morita equivalence for some families of quadratic fusion categories*. Preliminary report.

Quadratic categories are fusion categories with a unique non-trivial orbit from the tensor product action of the group of invertible objects. Familiar examples are the near-groups (with one non-invertible object) and the Haagerup-Izumi categories (with one non-invertible object for each invertible object). Frobenius-Schur indicators are an important invariant of fusion categories generalized from the theory of finite group representations. These indicators may be computed for objects in a fusion category \mathcal{C} using the modular data of the Drinfel'd center $Z(\mathcal{C})$ of the fusion category, which is itself a modular tensor category. Recently, Izumi and Grossman provided new (conjectured infinite) families of modular data that include the modular data of Drinfel'd centers for the known quadratic fusion categories. We use this information to compute the FS indicators; moreover, we consider the relationship between the FS indicators of objects in a fusion category \mathcal{C} and FS indicators of objects in that category's Drinfel'd center $Z(\mathcal{C})$. We also consider the consequences for Morita equivalence families for these quadratic categories. (Received August 31, 2021)