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Gregory G. Simon* (ggsimon@umich.edu). *Automorphism-invariant integral forms in Griess algebras*. Preliminary report.

Motivated by the existence of monster-invariant integral forms in the moonshine module VOA, I will present a study of automorphism-invariant integral forms in some small-dimensional Griess algebras, which are certain finite-dimensional commutative, nonassociative algebras generated by idempotents. An ‘integral form’ of a rational algebra is the integer span of a basis of the algebra that is closed under the algebra product. I will present methods that can be used to find and classify the maximal automorphism-invariant integral forms in a rational algebra. Each of the Griess algebras we have analyzed — the eight dihedral Griess algebras and three others — have unique maximal automorphism-invariant integral forms.

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