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*Morita theory and Azumaya objects in bicategorical contexts.*

Morita theory provides a wonderful first example of bicategorical structure in classic algebra. Generalizations of the Picard group, Azumaya algebras, and the Brauer group are now a part of higher-categorical folklore. However, these are important algebraic concepts not only because they have pleasing definitions but also because they are computationally accessible. This talk will explain how to generalize those results from algebra which make these concepts so accessible, and describe some examples of interest to topologists and algebraists. The essential tools: duality and our friend the (bicategorical) Yoneda lemma. (Received September 15, 2008)