

DUALIZABILITY IN THE HIGHER MORITA CATEGORY

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In this talk I will explain how one can use geometric arguments to obtain results on dualizability in a “factorization version” of the Morita category. We will relate our results to previous dualizability results (by Douglas-Schommer-Pries-Snyder and Brochier-Jordan-Snyder on Turaev-Viro and Reshetikin-Turaev theories). We will discuss applications of these dualizability results: one is to construct examples of low-dimensional field theories “relative” to their observables. An example will be given by Azumaya algebras, for example polynomial differential operators (Weyl algebra) in positive characteristic and its center. (This is joint work with Owen Gwilliam.)