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title

A universal property of the higher category of spans and finite gauge theory as an extended TFT

abstract

I will explain how to generalize Harpaz' universal property of the $(\infty, 1)$ -category of spans to the higher category thereof. The crucial property is "m-semiadditivity". Along the way we prove a loop-delooop adjunction for m-semiadditive enriched categories. The motivation for this is to obtain finite gauge theory as a (fully) extended TFT following the strategy outlined by Freed-Hopkins-Lurie-Teleman. This is joint work in progress with Tashi Walde.