
MICAH MCCURDY, Macquarie University, North Ryde, New South Wales 2109, Australia
String and Stripes: Graphical Notation for Functors between Tensor Categories

Building on the “functorial boxes” introduced by Cockett and Seely and recently revived by Mellies, we introduce a notation for functors between tensor categories based on an intuition of “piping”. This notation extends smoothly to encompass natural transformations, and is especially strong in showing naturality. I will give some examples of existing proofs rewritten in this notation to show its elegance, such as the well-known fact that a monoidal natural transformation between two monoidal functors with rigid domain is necessarily invertible. Time permitting, I will also discuss extensions to cover monoidal monads and other structures.