Drinfeld Center of a monoidal category

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1 Material covered

I began by providing a definition of the Drinfeld center $Z(C)$, using components to provide as much clarity and concreteness as possible. After this, I discussed that $Z(C)$ is monoidal and how this follows from the component definition. After this, I provided the abstract definition from nlab, and went down 1 layer of rabbit holes to provide definitions of 2-categories, 2-functors, pseudo-natural transformations. After this I discussed how to unravel the abstract definition, following the discussion on nlab, and its relation to the component definition I gave to start.

2 Issues/Discussion

We stopped to discuss how the braiding of $Z(C)$ follows from the component definition, as there was some confusion as to whether the braiding was being induced on C or $Z(C)$. There was also a discussion concerning how to think about 2-categories, especially viewing them as Cat enriched categories. This was resolved after a while, and I explained the intuitive differences between 2-functors, pseudo-functors and lax-functors, and the corresponding versions of natural transformations.