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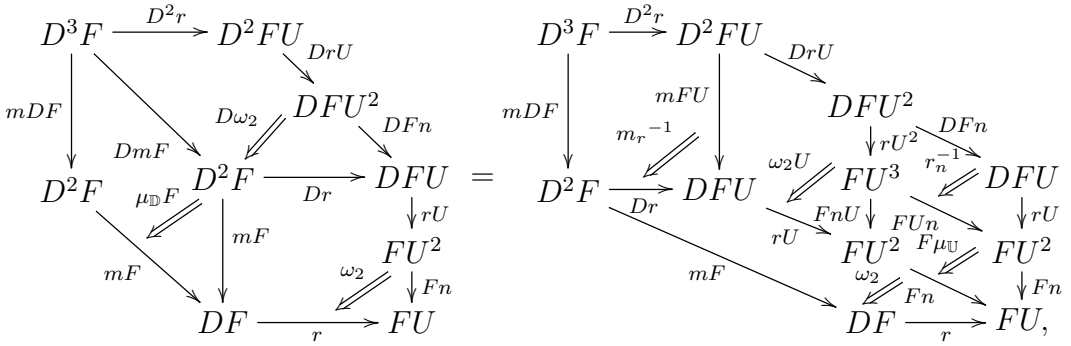
No iteration transitions for pseudomonads

We report on the progress towards a no iteration codification of distributive laws for pseudomonads. This time we present the no iteration codification for a transition from a pseudomonad $\mathbb{U}$ on a 2-category $\mathcal{A}$ to a pseudomonad $\mathbb{D}$ on a 2-category $\mathcal{X}$ along a 2-functor $F\colon \mathcal{A} \to \mathcal{X}$. It is well known that such structures correspond to liftings of F to the corresponding algebras of $\mathbb{U}$ and $\mathbb{D}$. In the known codification for these transitions, one of the coherence conditions necessary is:



and is thus difficult to verify in particular cases. The no iteration codification avoids the iterations of D and U shown in the above picture, and thus it is much easier to handle in particular examples. This is joint work with Adrián Vázquez-Márquez.