A model structure whose fibrant objects are quasi-2-categories

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Abstract. The goal of this talk is to describe the fibrant objects, called quasi-2-categories, of a model structure on Θ_2 -sets. As a first step, we recall the model structure on simplicial sets whose fibrant objects are quasi-categories and the so-called Anodyne Theorem, a key component in demonstrating the model structure. We then recall the corner tensor construction of two variables and use it to extend the quasi-category model structure to a model structure on bisimplicial sets. Using Day Convolution we describe a corner tensor functor of n variables and use this construction to lift the quasi-category model structure to the model structure whose fibrant objects are quasi-2-categories.

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