Categories triangulades

Referència: Muro, F., Schwede, S. and Strickland, N. P. Triangulated categories without models. *Inventiones Mathematicae*, **170(2)** (2007), pp. 231–241.

Abstract: We exhibit examples of triangulated categories which are neither the stable category of a Frobenius category nor a full triangulated subcategory of the homotopy category of a stable model category. Even more drastically, our examples do not admit any non-trivial exact functors to or from these algebraic respectively topological triangulated categories.

Referència: Muro, F. and Tonks, A. The 1-type of a Waldhausen K-theory spectrum. *Advances in Mathematics*, **216(1)** (2007), pp. 178–211.

Abstract: We give a small functorial algebraic model for the 2-stage Postnikov section of the K-theory spectrum of a Waldhausen category and use our presentation to describe the multiplicative structure with respect to biexact functors.

Referència: Casacuberta, C. and Neeman, A. Brown representability does not come for free. *Mathematical Research Letters*, **16(1)** (2009), pp. 1–5.

Abstract: We exhibit a triangulated category $\mathcal{T}$ having both products and coproducts and a triangulated subcategory $\mathcal{S} \subset \mathcal{T}$ which is both localizing and colocalizing, and for which neither a Bousfield localization nor a colocalization exists. It follows that neither the category $\mathcal{S}$ nor its dual satisfy Brown representability. Our example involves an abelian category whose derived category does not have small Hom-sets.