Haugseng, Rune

On (co)ends in ∞-categories. (English) Zbl 1470.18029

J. Pure Appl. Algebra 226, No. 2, Article ID 106819, 16 p. (2022).

The principal objective in this paper is to lift the familiar equivalence of the definitions of (co)ends via twisted arrow categories

$$\mathrm{Tw}^l(\mathcal{C}) \to \mathcal{C}^{\mathrm{op}} \times \mathcal{C}$$

and via categories of simplices

$$\Delta_{/\mathcal{C}} \to \mathcal{C}^{\mathrm{op}} \times \mathcal{C}$$

to ∞-caterories. It is also shown that weighted (co)limits, which can be defined as certain (co)ends, can altertively be described as (co)limits over left and right fibrations, respectively.

Reviewer: Hirokazu Nishimura (Tsukuba)

MSC:

18N60 $(\infty, 1)$-categories (quasi-categories, Segal spaces, etc.); ∞-topoi, stable ∞-categories

18A30 Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)

Full Text: DOI

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