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Representable n -Multicategories

We pursue the treatment of higher-dimensional weak categories via universal properties exploring representability for n -multicategories. We follow the theory set up in [2], [1] where we recaptured monoidal categories as representable 1-multicategories. At dimension 2, as expected, we recapture monoidal bicategories (with respect to Gray-tensor product).

[1] Claudio Hermida. From coherent structures to universal properties. *Journal of Pure and Applied Algebra*, 165(1):7–61, 2001. preprint available [math.CT/0006161](https://arxiv.org/abs/math/0006161).

[2] Claudio Hermida. Representable multicategories. *Adv. Math.*, 151(2):164–225, 2000.

[3] Tom Leinster. Higher operads, higher categories, volume 298 of *London Mathematical Society Lecture Note Series*. Cambridge University Press, Cambridge, 2004.