

Cockett, J. R. B.; Lack, Stephen

The extensive completion of a distributive category. (English) Zbl 1005.18003
Theory Appl. Categ. 8, 541-554 (2001).

The main result of this paper is the universal construction of an extensive category \mathcal{D}_{ex} with products for each distributive category \mathcal{D} , together with a functor $\mathcal{D} \rightarrow \mathcal{D}_{\text{ex}}$ preserving finite products and finite coproducts. Formally speaking, the authors construct a left biadjoint to the inclusion of $\mathfrak{E}xt_{\text{pr}}$ into $\mathfrak{D}ist$, where $\mathfrak{D}ist$ is the 2-category of distributive categories, distributive functors and natural transformations, and $\mathfrak{E}xt_{\text{pr}}$ denotes its full sub-2-category of extensive ones.

Reviewer: [Hirokazu Nishimura \(Tsukuba\)](#)

MSC:

18B15 Embedding theorems, universal categories
18D99 Categories with structure
18A40 Adjoint functors

Cited in 1 Document

Keywords:

free construction; distributive category; extensive category; 2-category

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