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On formalization of bicategory theory. (English) [Zbl 0897.18003](#)

Gunter, Elsa L. (ed.) et al., Theorem proving in higher order logics. 10th international conference, TPHOLS '97. Murray Hill, NJ, USA. August 19–22, 1997. Proceedings. Berlin: Springer. Lect. Notes Comput. Sci. 1275, 199-214 (1997).

A generalization of the Yoneda lemma to the case of bicategories is formalized directly in the extended calculus of constructions. An implementation using the proof-checker LEGO is reported, and the problems related to this implementation are discussed.

For the entire collection see [[Zbl 0870.00024](#)].

Reviewer: [S.V.Solov'ev \(Durham\)](#)

MSC:

18D05 Double categories, 2-categories, bicategories and generalizations (MSC2010)

68T15 Theorem proving (deduction, resolution, etc.) (MSC2010)

03B35 Mechanization of proofs and logical operations

Keywords:

generalized Yoneda lemma; proof-checker LEGO; bicategory theory