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(Co)limit calculations in the category of 2-crossed R-modules. (English) Zbl 07612139

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Crossed modules model homotopy 2-types, while crossed squares model 3-types. *D. Conduché* [J. Pure Appl. Algebra 34, 155–178 (1984; Zbl 0554.20014)] had an alternative model for 3-types in terms of 2-crossed modules, another version of which was given as quadratic modules by *H. J. Baues* [Combinatorial homotopy and 4-dimensional complexes. Berlin etc.: Walter de Gruyter (1991; Zbl 0716.55001)]. This paper shows how to construct finite limits and colimits within 2-crossed R-modules over groups.

Reviewer: Hirokazu Nishimura (Tsukuba)

MSC:

18A30 Limits and colimits (products, sums, directed limits, pushouts, fiber products, equalizers, kernels, ends and coends, etc.)
20J15 Category of groups

Keywords:

2-crossed module; coproduct; pullback

Full Text: DOI

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