

# A push forward construction and the comprehensive factorization for internal crossed modules II

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This talk continues the exposition of the notion of push forward of an internal crossed module [4] along a map.

In particular I will focus on the properties of the push forward in the denormalized context of internal groupoids.

Actually the push forward construction, together with its universal property, turns out to be strongly related with the comprehensive factorization of internal functors (see [2]).

Finally some applications are given, both in pointed and non pointed environments. They generalize well-known notions of the 2-category of strict 2-groups and monoidal functors to the intrinsic settings of internal crossed modules and butterflies [1], as well as internal groupoids and fractors [5].

## REFERENCES

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- [5] S. Mantovani, G. Metere and E. M. Vitale, *Profunctors in Mal'tsev categories and fractions of functors*, submitted (2012).
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