

PARTIAL GROUP ACTIONS ON MONOIDAL CATEGORIES.

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Abstract: In this talk we are going to present the notion of a partial action of a finite group G on a monoidal category C . Following Tambara [3], we are going to show some attempts to generalize the notions of equivariantization and smash product for the case of partial actions. There are some theoretical differences with relation to the global case, mainly concerning ideals and idempotents in monoidal categories [1]. The possible link between partial group actions on monoidal categories and Hopf polyads also will be commented [2].

References:

- [1] M. Boyarchenko and V. Drinfeld: “Idempotents in monoidal categories”, preprint <http://www.math.uchicago.edu/~mitya/idempotents.pdf>
- [2] A. Bruguières: “Hopf polyads”, *Algebr. Represent. Theory* 20 (2017) 1151-1188.
- [3] D. Tambara: “Invariants and semi-direct products for finite group actions on tensor categories”, *J. Math. Soc. Japan*, Volume 53, Number 2 (2001), 429-456.