

# Partial cohomologies

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## Resumo

There are four types of cohomology around partial group actions:

- 1) The 0-cohomology of semigroups used in the theory of partial projective group representations [4]. The 0-cohomology of a semigroup  $S$  can be seen as the so-called “partial cohomology” of a certain semigroup  $T$  related to  $S$  [6].
- 2) The cohomology of a group  $G$  with values in a partial  $G$ -module [3]. In the case when the partial module is a commutative algebra, this cohomology was extended in [2] to the context of co-commutative Hopf algebras.
- 3) The cohomology of a group  $G$  with values in a  $K_{par}G$ -module [1], where  $K_{par}G$  is the partial group algebra of  $G$  over  $K$ .
- 4) The relative partial cohomology of a group  $G$  related to the partial Schur multiplier [5].

We shall give an overview of the relations of the theory of partial group actions and partial group representations with cohomology.

## Referências

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