

On the homology groups $H_*(\mathfrak{S}_d, V^{\otimes d})$

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The homology groups $H_*(\mathfrak{S}_d, V^{\otimes d})$ as representations of general linear group $GL(V)$ were first described by Cohen-Nakano-Hemmer [1], relying on classical algebraic topology computations (concerning Dyer-Lashof operations). In this talk, we discuss another approach to the homology groups $H_*(\mathfrak{S}_d, V^{\otimes d})$ of Antoine Touzé [2], using exponential functors in the category of strict polynomial functors.

Tài liệu

- [1] Frederick R. Cohen, David J. Hemmer, and Daniel K. Nakano. On the cohomology of Young modules for the symmetric group. *Adv. Math.*, 224(4):1419–1461, 2010.
- [2] Antoine Touzé. On the structure of graded commutative exponential functors. *arXiv e-prints*, page arXiv:1810.01623, October 2018.