A categorical viewpoint on classical Quillen's stratification theorem for group cohomology

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Resumen. Quillen' s stratification theorem [1] stablishes a connection of algebraic geometry ideas to ordinary algebraic topology, providing a geometric description of the cohomology of any finite group with coefficients in a field in terms of a decomposition of its Zariski spectrum into locally closed subsets indexed on the conjugacy classes of elementary abelian subgroups. In this project, we prove a generalization of Quillen's stratification, lifting from group cohomology to arbitrary equivariant cohomology theories. We provide generalizations of the classical theorem in two directions: we work with arbitrary commutative equivariant ring spectra as coefficients, and we categorify it to a result about categories of equivariant modules over the ring. The result is formulated in the language of equivariant tensor-triangular geometry [2]. This is joint work with T. Barthel, D. Heard, N. Naumann, L. Pol.

Palabras clave: Group cohomology; Equivariant homotopy; Tensor-triangulated categories.

Referencias

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