

HIGHER CENTRAL EXTENSIONS AND COHOMOLOGY

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(joint work with Tim Van der Linden)

We establish a Galois-theoretic interpretation of cohomology in semi-abelian categories: cohomology with trivial coefficients classifies central extensions, also in arbitrarily high degrees. This allows us to obtain a duality, in a certain sense, between "internal" homology and "external" cohomology in semi-abelian categories. These results depend on a geometric viewpoint of the concept of a higher central extension, as well as the algebraic one in terms of commutators

REFERENCES

- [1] D. Rodelo, T. Van der Linden, *Higher central extensions and cohomology*, Adv. Math, accepted.

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