Eine Woche, ein Beispiel

4.9 group cohomology

Etingof–Gelaki–Nikshych–Ostrik: Tensor Categories

A much better document is this:
https://users.math.msu.edu/users/ruiterj2/math/Documents/Spring%202019/Comprehensive%20exam/Group%20cohomology,%20Brauer%20groups,%20and%20algebraic%20K-theory.pdf

A: Abelian

$$H^0(G,A) = A^G$$

$$H^1(G,A) = \{f: G \to A \rtimes G\}/A\text{-conj}$$
$$\overset{G \subset A \text{ triv}}{=\!=} \mathrm{Hom}_G(G,A)/A\text{-conj}$$

$$H^2(G,A) = \{0 \to A \to X \to G \to 0 \mid \text{extension of } G \text{ by } A\}$$
($G \subset A$ coincide)
$$\overset{G \subset A \text{ triv}}{=\!=} \{0 \to A \to X \to G \to 0 \mid X \text{ central ext of } G\}$$