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Bogomolov multipliers of groups

The Bogomolov multiplier is a group theoretical invariant isomorphic to the unramified Brauer group of a given quotient space, and represents an obstruction to the problem of stable rationality of fixed fields. In this talk we survey some recent results regarding Bogomolov multipliers. We derive a homological version of the Bogomolov multiplier, prove a Hopf-type formula, and a five term exact sequence corresponding to this invariant, and describe the role of the Bogomolov multiplier in the theory of central extensions. An algorithm for computing the Bogomolov multiplier is presented, and we exhibit minimal counterexamples to Noether's problem. We discuss probabilistic aspects of Bogomolov multipliers.