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„On LBG cohomology and finite groups of Lie type "

Abstract:
Finite groups of Lie type, such as SL_n(F_q), Sp_n(F_q)..., are ubiquitous in mathematics, and calculating their cohomology has been a central theme over the years. It has calculationally been observed that (when calculable) their mod ell cohomology agree with the mod ell cohomology of LBG(C), the free loop space on BG(C), the classifying space of the corresponding complex algebraic group G(C), as long as q is congruent to 1 mod ell. In recent joint work with Anssi Lahtinen, that combines ell–compact groups with string topology à la Chas–Sullivan, we attempt to provide a reason behind this "coincidence".