1023-20-519 **Fedor Bogomolov**, Courant Institute of Mathematical Sciences, 251 Mercer Street, New York, NY 10012, and **Jorge Maciel*** (maciel@courant.nyu.edu), BMCC-The City University of New York, 199 Chambers Street, New York, NY 10007. *Central Extensions and Unramified Brauer Groups.*

We answer a group-theoretical question related to the problem of stable rationality of quotient spaces V/G where G is a finite (algebraic) group and V is a faithful complex linear representation of G. We study the subgroup $B_0(G)$ of $H^2(G,\mathbb{Q}/\mathbb{Z})$ which serves as the simplest nontrivial obstruction to stable rationality of algebraic varieties V/G and coincides with geometric birational invariant of a smooth projective model $\widetilde{V/G}$ for V/G, the so called *Unramified Brauer Group*, introduced by Artin and Mumford. *Bogomolov's Conjecture* states that for any finite simple group G, $B_0(G) = 0$. We prove this result for finite simple groups of Lie type A_l where the groups are $PSL(n, F_q)$ and for which the group $SL(n, F_q)$ is a covering group, by proving that every element of the group $H^2(PSL(n, F), \mathbb{Q}/\mathbb{Z})$ that defines a central extension of $PSL(n, F)$ which is isomorphic to the quotient $SL(n, F)/\mathbb{Z}_h$, where $\mathbb{Z}_h$ is a central subgroup, does not belong to $B_0(PSL(n, F))$. (Received September 15, 2006)