962-55-648 **Samuel B. Smith*** (smith@sju.edu), Department of Mathematics, St. Joseph's University, Philadelphia, PA 55131. *Rational homotopy Lie algebra of classifying spaces for fibrations.*

We describe the structure of the rational homotopy Lie algebra of the classifying space $Baut_1(X)$ for a large class of formal spaces X. In particular, we compute the center and nilpotency of $\pi_*(\Omega\, Baut_1(X)) \otimes \mathbf{Q}$ for these X. The latter calculation determines the *rational homotopical nilpotency* of the space of self-equivalences of X; that is, the length of the longest rationally essential commutator in the monoid $aut_1(X)$. (Received September 18, 2000)