1043-55-186 **Gregory Lupton*** (g.lupton@csuohio.edu), Department of Mathematics, Cleveland State University, 2121 Euclid Avenue, Cleveland, OH 44115, and **Yves Félix** and **Samuel B Smith**.

*The Rational Homotopy Type of Spaces of Self-Equivalences of a Fibration.*

Let $\xi\colon F \to E \to B$ be a fibration. Let $\mathrm{aut}(\xi)$ denote the space of all self-fibre homotopy equivalences of $\xi$. The space $\mathrm{aut}(\xi)$ is a topological monoid under composition of functions with $\pi_0(\mathrm{aut}(\xi)) = \mathcal{E}(\xi)$, the group of homotopy classes of fibre homotopy equivalences of $\xi$. In this paper, we make a general study of $\mathrm{aut}(\xi)$ in rational homotopy theory. Our basic result describes the rational Samelson Lie algebra of this monoid as the homology of a certain derivation Lie algebra of Sullivan minimal models under suitable restrictions on $\xi$. Our applications include calculations of the rational homotopical nilpotency of $\mathrm{aut}(\xi)$. We also prove general results on the group $\mathcal{E}(\xi)$. (Received August 26, 2008)