Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-55-156 **Jean-Baptiste Gatsinzi*** (gatsinzj@mopipi.ub.bw), Department of Mathematics, University of Botswana, Private Bag 0022, Gaborone, Botswana. *On the genus of fibrations of fibre* $\prod K(\mathbb{Q}, 2k_i)$.

Definition. The LS category of a space X, $cat(X)$, is the least integer n such that X can be covered by $n+1$ open subsets, each contractible in X.

Fibrations with fibre in the homotopy type of X are obtained as pull back of the universal fibration

$$X \to B\,aut^{\bullet} X \to B\,aut\,X.$$

If $aut_1(X)$ denotes the path component of $aut\,X$ containing the identity, the fibration $X \to B\,aut_1^{\bullet}(X) \to B\,aut_1(X)$ is universal for fibrations with simply connected base spaces.

In this paper, we show the following

Theorem. If p is a fibration of fibre $X = \prod_{i=1}^{n} K(\mathbb{Q}, 2k_i)$, then the LS category of $B\,aut_1(X)$ equals $\dim \pi_*(B\,aut_1(X) \otimes \mathbb{Q}$. (Received August 14, 2004)