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**Robert Kropholler, Ian J. Leary and Ignat Soroko\*** (ignat.soroko@ou.edu). *Uncountably many quasi-isometry classes of groups of type FP.*

An interplay between algebra and topology goes in many ways. Given a space  $X$ , we can study its homology and homotopy groups. In the other direction, given a group  $G$ , we can form its Eilenberg-MacLane space  $K(G, 1)$ . It is natural to wish that it is “small” in some sense. If  $K(G, 1)$  space has  $n$ -skeleton with finitely many cells, then  $G$  is said to have type  $F_n$ . Such groups act naturally on the cellular chain complex of the universal cover for  $K(G, 1)$ , which has finitely generated free modules in all dimensions up to  $n$ . On the other hand, if the group ring  $ZG$  has a projective resolution  $(P_i)$  of length  $n$  where each module  $P_i$  is finitely generated, then  $G$  is said to have type  $FP_n$ . There have been many intriguing questions on whether classes  $F_n$  and  $FP_n$  are different, and some of them are still open. Bestvina and Brady gave first examples of groups of type  $FP_2$  which are not finitely presentable (i.e. not of type  $F_2$ ). In his recent paper, Ian Leary has produced uncountably many of such groups. Using Bowditch’s concept of taut loops in Cayley graphs, we show that Ian Leary’s groups actually form uncountably many classes up to quasi-isometry. (Received September 21, 2017)