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N6A 5B7, Canada. *Filtrations of classifying spaces.*

Adem, Cohen, and Torres-Giese introduced a natural filtration of the classifying space BG of a group G using descending central series of free groups. The spaces $B(q, G)$ in the filtration are defined simplicially from the spaces of homomorphisms from nilpotent quotients of free groups to G . I will talk about homotopical properties of $B(q, G)$ when $q = 2$. For extraspecial p -groups $B(2, G)$ has interesting properties which have potential applications in quantum physics. (Received January 25, 2017)