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Markus Linckelmann (linckelm@math.jussieu.fr), CNRS, Université Paris 7, UFR Mathématiques, 2, place Jussieu 75251 Paris Cedex 05, France, and Peter J Webb* (webb@math.umn.edu), School of Mathematics, University of Minnesota, Minneapolis, MN 55455. The classifying space of a block of a finite group. Preliminary report.

For each block of the group algebra of a finite group over a large enough field in characteristic p there is a p-complete spectrum whose (co)homology mod p is the (co)homology of the block as previously defined in the article in Algebras and Representation Theory 2 (1999), 107-135. It is a stable summand of the classifying space of the defect group of the block, corresponding to a certain idempotent in the double Burnside ring. This idempotent is constructed from the source algebra of the block. We describe the construction and some basic properties. (Received September 13, 2000)