1046-55-2092 Jack Morava* (jack@math.jhu.edu). Extensions of motives and cell bundles.

Abstract: Algebraic geometers are interested in a category of mixed Tate modules over \mathbb{Z} , in which extensions of cell-like objects are classified by elements of certain algebraic K-groups of the integers (at least, after tensoring with the rationals). On the other hand, Waldhausen has shown that certain cell bundles are also (rationally) classified by similar K-groups. It would be nice if there were a differential-topological interpretation of motives which accounts for this near coincidence, but there is a small dimensional discrepancy in the groups which occur... (Received September 17, 2008)