

# Additive decomposition of the equivariant stable homotopy category

Ivo Dell'Ambroggio

Let  $G$  be a finite group. The crossed Burnside ring of  $G$ , introduced by Yoshida, is a variant of the classical Burnside ring of finite  $G$ -sets. Working with  $p$ -local coefficients, in 2001 Bouc explicitly described the primitive idempotents of the crossed Burnside ring in terms of blocks of the group algebra, and showed that the ring acts on the category of Mackey functors. He used this to describe the decomposition of the latter category into indecomposable factors. In this talk, I will explain how to use the recent theory of Mackey 2-functors (a categorified version of Mackey functors) and of Mackey 2-motives (an analogue in this context of Grothendieck's motives) in order to export the action of the crossed Burnside ring to obtain similar factor decompositions for many other additive categories "of  $G$ -equivariant objects". Most notably, this applies nicely to the  $G$ -equivariant stable homotopy category.