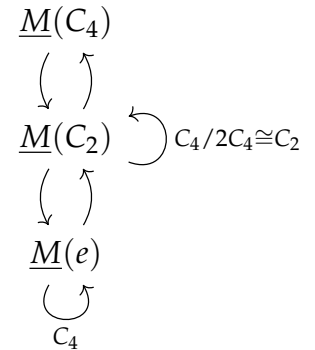


Math 751 – Fall 2020

Equivariant homotopy and cohomology

Worksheet 5

1. A Mackey functor for C_4 is displayed to the right, where we write C_2 for the subgroup $2C_4 \leq C_4$.



- (a) Write down the fixed-point Mackey functors $F(\sigma)$ and $F(\lambda_4)$.
 (For σ , you can either take the representation or the module \mathbb{Z}_{sgn} , the idea is the same.)
- (b) Write down the orbit Mackey functors $Q(\sigma)$ and $Q(\lambda_4)$.

2. Build a projective resolution for the dual constant Mackey functor $\underline{\mathbb{Z}}^*$ over $G = C_2$. (I did a similar example in the “Projective resolution for \mathbb{Z} ” video.)
3. Let \underline{M} be a C_2 -Mackey functor. Describe the induced Mackey functor $\text{Ind}_{C_2}^{C_4} \underline{M}$.