



# TOPOLOGY SEMINAR

## RO( $C_2$ )-graded coefficients of $C_2$ -Eilenberg-MacLane spectra

By

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**Abstract:** Computing the ordinary homology of a point in non-equivariant topology is a very easy task - we need only to take a look at the dimension axiom. The situation in  $G$ -equivariant topology is different. The reason is that the equivariant analogue of ordinary homology, called Bredon homology, is naturally graded over the ring of representations. Therefore the gradation has more "dimensions". The equivariant dimension axiom describes the homology along only one axis - however, non-trivial homology groups occur in other places.

During the talk, I will describe a method of deriving this homology based on the Tate square. We will start with a brief introduction to equivariant stable homotopy theory. This will be followed by a discussion of the Tate square and the derivation of the homotopy groups.

The talk is based on a recently published paper "On the  $RO(Q)$ -graded coefficients of Eilenberg-MacLane spectra". Please note that this talk will be outside of the general topic of applications of topology in quantum contextuality.

**Date:** Monday, October 24, 2022

**Time:** 13:30

**Place:** SA141 Mathematics Seminar Room