

CHROMATIC HOMOTOPY, K -THEORY AND FUNCTORS

CIRM, LUMINY, 23-27.01.2023

MONDAY 11:30 – 12:30, **Ivo Dell’Ambrogio** (Université de Lille):

A survey of Mackey and Green 2-functors.

Since the early 70s, Mackey and Green functors have been successfully used to model the induction and restriction maps which are ubiquitous in the representation theory of finite groups. In concrete examples, the latter maps are typically distilled, in some way, from induction and restriction functors between additive (abelian, triangulated...) categories. In order to better capture this richer layer of equivariant information with a (light!) set of axioms, we are naturally led to the notions of Mackey and Green *2-functors*. Many such structures have been in use for a long time in algebra, geometry and topology. We survey examples and applications of this young—yet arguably overdue—theory.

This is partially joint work with Paul Balmer and Jun Maillard.