Twisted Equivariant Cohomology and Orbifolds

Laura Scull *

Abstract. I will present a new for defining equivariant cohomology for G-spaces, based on a categorical construction: we define a G-simplicial category as a Grothendieck twisted product. This category has been defined by Moerdijk-Svensson for discrete groups; I will explain the adaptations needed to make sense of this approach for general compact Lie groups. This new definition also allows us to extend the definition to orbifolds.

^{*}Joint work with Dorette Pronk.