

Séminaire d'algèbre, géométrie et topologie
Jeudi 18 septembre à 14h
Salle I

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Nice

Resolutions of categories and derived sections

In the world of triangulated categories, Kuznetsov-Lunts categorical resolutions have proved to be of use for an assortment of geometric problems related to singular varieties. We would like to have a similar notion of categorical resolution in homotopical algebra, where one works with categories which are not additive, such as the categories of E_n -algebras. Describing algebraic structures as sections of certain Grothendieck fibrations (as done by Segal and Lurie) we pose the question of constructing categorical resolutions for the categories of sections. To tackle the arising issues, we introduce the notion of derived section of a homotopical Grothendieck fibration (a notion relying on classical ideas by Bousfield and Kan), which allows us to construct categorical resolutions from suitable functors on the level of bases of fibrations.