

Short Communications IV Seminar on Categories and Applications Bellaterra, 6 to 9 of June of 2007

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Simplicial descend Categories

In this talk we will present the notion of "simplicial descent category", which is a simplicial version of "cubical" homological descent category, introduced by F. Guillén and V. Navarro in "Un Critère d'Extension des Foncteurs Définis sur les Schémas Lisses". Some examples of simplicial descent categories are chain (filtered) complexes, topological spaces, (commutative) differential graded algebras, mixed Hodge complexes, etc. The main point of this kind of categories is that cylinder and cone objects with the "usual" properties are induced in them. This allows to give an explicit description of their localized categories (more general than the case of calculus of fractions), and to prove that simplicial descent categories has a pre-triangulated localized category.

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