

Excision Theorems in Homotopy Theory**Georg Biedermann**

Université Paris 13

georgbiedermann@yahoo.com

Two important invariants in Homotopy Theory are homotopy groups and (singular) homology groups. The homology of a topological space is usually easier to understand. This comes from the fact that homology behaves well on glueing constructions (pushouts). The Homotopy Excision Theorem (Blakers-Massey theorem) tells us that in a certain range homotopy groups behave like a homology theory. It is in some sense the fundamental theorem of Homotopy Theory. I will introduce all the notions necessary to understand the theorem and then state it. If time permits I will present recent joint work with Anel, Finster, and Joyal vastly generalizing the classical statement.