

GRADUATE SEMINAR

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Homotopy Pushouts and Homotopy Pullbacks

MSc Student Supervised by Don Stanley

Wednesday, December 7th

1:30 pm – 2:30 pm

Math Lounge, CW 307.20

Abstract

Homotopy pushouts and homotopy pullbacks are basic constructions in algebraic topology. For topological spaces they do not coincide – we have the Blakers-Massey theorem to measure the difference. These constructions are also different in the category of (commutative) differential graded algebras.

However in some other categories they do coincide. Examples include differential graded modules and spectra.

This talk is aimed at explaining these phenomena. Also we will describe possible directions of future research inspired by these phenomena.