

# Stable Homotopy Theory

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## Basics

We want to study homotopy-invariant constructions that are preserved by suspension. We want to construct a "stable homotopy category" where this stable behavior can be studied.

### What is Stable Phenomena?

We want to work with closed monoidal categories for our constructions.

**Definition 0.1.** The category of topological spaces  $\mathbf{Top}_*$  is defined to be the category of compactly generated weak Hausdorff topological spaces with continuous maps for morphisms  $\mathbf{Top}_*(A, B)$ .