

THE STABLE HOMOTOPY HYPOTHESIS

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The homotopy hypothesis is a well-known bridge between topology and category theory. Its most general formulation, due to Grothendieck, asserts that topological spaces should be "the same" as infinity-groupoids. In the stable version of the homotopy hypothesis, topological spaces are replaced with spectra.

In this talk we will review the classical homotopy hypothesis, and then focus on the stable version. After discussing what the stable homotopy hypothesis should look like on the categorical side, we will use the Tamsamani model of higher categories to provide a proof. This is based on joint work with Moser, Ozornova, Paoli and Verdugo.