

Ladders of 2-categories are sequences of 2-categories whose adjacent entries overlap in a certain way. This structure naturally encodes the concept of full dualizability from topological quantum field theory, and refines some invariants coming from algebraic topology and higher category theory.

The goal of this (ongoing) project is to axiomatize ladders and analyze the properties and structure that they form. In this presentation we will explain the motivation mentioned above, give a tentative definition, and provide some preliminary results from strict n -categories.