JULIE BERGNER, University of California, Riverside

Homotopy operads as diagrams

Many algebraic structures on spaces can be encoded via product-preserving functors from an algebraic theory to the category of spaces. For some structures, the algebraic theory can be replaced by a simpler diagram. For example, simplicial monoids are known to be equivalent to Segal monoids, given by certain Δ^{op} -diagrams. In joint work with Philip Hackney, we establish an equivalence of model categories between simplicial operads and certain Ω^{op} -diagrams, where Ω is the Moerdijk-Weiss dendroidal category. Furthermore, we extend this result to a diagrammatic description of simplicial operads with a group action.