

Configuration Spaces of \mathbb{S}^1 and \mathbb{R}^n

We approach manifold topology by examining configurations of finite subsets of manifolds. The homotopy-types of such configurations organize as an ∞ -category, the construction of which makes use of *stratified spaces* and *exit-path ∞ -categories* thereof. The goal of this talk is to supply the constructions of these ∞ -categories and to identify these ∞ -categories in the case of \mathbb{S}^1 and \mathbb{R}^n in terms of the combinatorially defined *parasimplex category* and Joyal's category Θ_n , respectively.