

Manifolds and spaces of graphs

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I will talk about an ongoing effort to detect pseudoisotopy, or families of h -cobordisms, beyond the stable range, therefore beyond the range where it is a part of Waldhausen K -theory (and perhaps also more broadly to create new invariants for families of manifolds). The effort involves a blend of flavors of functor calculus, in which stable pseudoisotopy appears as the degree one part from the point of view of orthogonal calculus. Higher degree analogues of K -theory remain elusive, but higher degree analogues of Hochschild/cyclic constructions are more within reach: they are related to maps from graphs to a manifold, where d is the first Betti number of the graph.