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**Title: On the complexity of non-inertial  $h$ -cobordisms**

**Abstract:** Morgan-Szabó in '99 defined a notion of complexity for  $h$ -cobordisms between 1- connected 4-manifolds and constructed a family of  $h$ -cobordisms of diverging complexity. Their examples are all inertial, i.e. the cobordisms have the same ends. I will show how to construct  $h$ -cobordisms of diverging complexity between exotic 4-manifolds. Furthermore, I will refine the result of Morgan-Szabó obtaining a lower-bound on the number of blow-ups needed to find  $h$ -cobordisms of non-minimal complexity.