

Diffeomorphisms of discs

ALEXANDER KUPERS

One of the basic objects of differential topology is the classifying space $B\text{Diff}_\partial(D^d)$ of the topological group of diffeomorphisms of a d -dimensional disc, fixing a neighbourhood of the boundary pointwise. In this talk I will give a survey of the classical results and recent breakthroughs, followed by a more detailed look at joint work with O. Randal-Williams. In it, we determined the rational homotopy groups of $B\text{Diff}_\partial(D^{2n})$ completely up to degree $4n - 10$ and outside certain bands.