

Sessão: Algebraic and Geometric Topology

Embeddings in Euclidean space

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Given a smooth manifold immersed in some Euclidean space, it is an old and difficult problem to determine the obstructions to removing multiple points, that is, to producing an embedding. Starting from a triangulation of the manifold, I will describe a homotopical invariant of the (possibly empty) space of all embeddings that lift a given immersion. After rationalization, this recovers an invariant of Fresse-Turchin-Willwacher which is expressible in combinatorial terms and only depends on the rational homotopy type of the manifold and the dimension of the Euclidean space. This is based on joint work with G. Horel, and earlier work with P. Lambrechts, P. Songhafuou and D. Pryor.