

SPACES OF $\mathbb{Z}/2$ -EQUIVARIANT MAPS BETWEEN SOME REAL ALGEBRAIC VARIETIES

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This talk is based on the joint work with Andrzej Kozłowski [5]. We study the homotopy types of spaces of algebraic (rational) maps from real projective space into the complex projective space. It is known that the inclusion of the space of rational maps into the space of all continuous maps is a homotopy equivalence. In this talk we prove that the homotopy types of the terms of the natural ‘degree’ filtration approximate closer and closer the homotopy type of the space of continuous maps and obtain bounds that describe the closeness of the approximation in terms of the degree. Moreover, we also show that the $\mathbb{Z}/2$ -equivariant version of the above type result, where the $\mathbb{Z}/2$ -action is induced by the complex conjugation. This also generalizes a theorem of [3].

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