

## Maximal and Typical Topology of Real Polynomial Singularities

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I will investigate the topology of the real projective varieties that arise as singular locus of polynomial equations, as the degree grows.

For what regards the maximal topology, it is possible to realize singularities with arbitrarily large Betti numbers, but there is a constraint on the degree:  $b = O(d^m)$ .

On the other hand, the typical behaviour of the Betti numbers is  $\sim d^{m/2}$  (the square root of the maximal). Here, "typical" means that we consider the expected value with respect to the Kostlan measure.