

## SINGULARITIES MAY REDUCE COMPLEXITIES ... UNFORTUNATELY NOT ALWAYS!

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In the first part of the talk, we will illustrate this paradigm in case of the following problem: find for each connected component of a real algebraic variety a sample point.

In the second part, we shall show how hidden degenerations of mathematical objects like varieties or polynomials generate obstructions for the efficiency of elimination algorithms.

Joint works with Bernd Bank, Joos Heintz, Guy Mbakop and Luis Miguel Pardo.