

A motivic measure for real algebraic sets

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This talk is devoted to the construction of a motivic measure on the space of real analytic arcs on a real algebraic set. Since real algebraic geometry is quite different from complex algebraic geometry as there is, for example, no Nullstellensatz or Chevalley's theorem, the classical construction of the motivic measure does not work as is for real algebraic sets. The main part of the talk will focus on how to get around these issues. Then, if time permits, I will state two applications of this real motivic measure about blow-Nash maps and Lipschitz maps. (joint work with T. Fukui, K. Kurdyka, A. Parusiński)