

Mild Parametrization in O-Minimal Structures

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Abstract

Mild parametrizations, which are parametrizations with some control on the derivatives, were first applied in the realm of diophantine geometry by J. Pila, to obtain results about the density of rational points on the graphs of non-algebraic Pfaffian functions. Furthermore he has shown that obtaining mild parametrization results with some uniformity in parameters would be sufficient to establish Wilkie's conjecture.

In this talk I will describe interactions between o-minimal structures and mild parametrizations and discuss whether definable sets of certain o-minimal expansions of the reals admit mild parametrization or not.