Séminaire d'algèbre, géométrie et topologie
Jeudi 10 décembre à 14h
Salle I

Krzysztof Kurdyka

Chambéry

Curve-rational functions

Let X be an algebraic subset of $\mathbf{R}^n$, and $f\colon X \to \mathbf{R}$ a semialgebraic function. We prove that if f is continuous rational on each curve $C \subset X$ then :

1. f is arc-analytic,
2. f is continuous rational on X.

As a consequence we obtain a characterization of hereditarily rational functions recently studied by J. Kollár and K. Nowak.
This is joint work with W. Kucharz.