Séminaire d'algèbre, topologie et géométrie
Jeudi 9 octobre à 14h
Salle de conférences

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Aquila

Curvature measures and soap bubbles

Classical results of Alexandrov (1958) and Korevaar-Ros (1988) characterize the ball as the unique smooth domain whose k-th mean curvature function is constant for some $k = 1, \ldots, n$. Replacing the classical pointwise mean curvature functions by the curvature measures, the same uniqueness result is true among arbitrary convex bodies (Schneider 1979). In this talk I first recall some of the fundamental aspects of the theory of curvature measures and then I discuss recent generalizations of these results to arbitrary sets of positive reach (joint work with Daniel Hug).