LOCAL MONOTONICITY OF MEASURES SUPPORTED BY GRAPHS OF CONVEX FUNCTIONS

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Abstract ____

Let $f \in C^2(\mathbb{R})$ satisfy f(0) = f'(0) = 0 and f''(0) > 0. Then the 1-dimensional Hausdorff measure restricted to the graph of fis locally monotone near the origin in the sense that there exists $\sigma > 0$ such that the function $r \mapsto \frac{\mu_f B(z,r)}{r}$ is nondecreasing on $(0, \sigma)$ for every centre $z \in B(\sigma)$. The result is reformulated for Hausdorff measures restricted to

The result is reformulated for Hausdorff measures restricted to uniformly C^2 -curves in \mathbb{R}^2 with the curvature bounded away from zero and infinity.

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