

Snakeness of Monotone Functions

Yury Andreev

The definition of snakeness of monotone function will be given and the estimates of measure of snakeness will be given for any arbitrary monotone function. The corresponding examples will be shown. Snakeness is a very intuitive property composed of convexity and concavity. It could be simply defined by the cord movement of graph of a function. A linear function does not have this property at all. Convex and concave functions snake a bit. The Cantor stair case function looks very “snakey, but it doesnt provide extreme behavior because of it’s long constant pieces. There exists non-trivial estimates of the snakeness for arbitrary monotone functions.