# POWERS OF DISTANCES TO LOWER DIMENSIONAL SETS AS MUCKENHOUPT WEIGHTS

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**Abstract.** Let $(X, d, \mu)$ be an Ahlfors metric measure space. We give sufficient conditions on a closed set $F \subsetneq X$ and on a real number $\beta$ in such a way that $d(x, F)^\beta$ becomes a Muckenhoupt weight. We give also some illustrations to regularity of solutions of partial differential equations and regarding some classical fractals.