Fractal Calculus Needs to Include Fractal measure

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This paper presents fractal calculus which is based on the measure of fractals and ordinary calculus. We consider functions that are defined on the Cantor sets, then we show that ordinary calculus can not be used for that function because of two reasons. First, because the length measure used in the ordinary calculus is not suitable for fractals, for example, in the case of the Cantor set, the length is zero. Secondly, the Cantor set is totally discontinuous therefore the functions are not integrable. But we explain how fractal calculus is solving these two problems. More, Fractal Laplace equations and fractal random variables are presented [1, 2, 3, 4, 5, 6, 7, 8].

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