

Fractional Cauchy problem on random snowflakes

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We consider random snowflakes which are domains whose boundary is constructed by mixtures of Koch curves with random scales. These domains are obtained as limit of domains with Lipschitz boundary, whereas for the limit object, the fractal given by the random Koch domain, the boundary has Hausdorff dimension between 1 and 2.

We study time fractional Cauchy problems on the pre-fractal boundary and we prove asymptotic results for the corresponding fractional diffusions.