

# Hanoi attractors and the Sierpiński gasket: Geometric and analytic convergence

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For each  $\alpha \in (0, 1/3)$ , we define the so-called Hanoi attractor  $K_\alpha$ . We show that the sequence  $(K_\alpha)_\alpha$  converges to the Sierpiński gasket  $K$  with respect to the Hausdorff metric as  $\alpha$  tends to 0, and the Hausdorff dimension converges too. In view of this result, we look for an analytic convergence: We define a Laplacian on  $K_\alpha$ , whose asymptotic behaviour will be studied and compared with the one corresponding to  $K$ . Since  $K_\alpha$  is not self-similar, we will have to modify the classical construction of the Laplace operator for p.c.f. self-similar fractals by Kigami, Strichartz et al.