
Norbert Steinmetz

Sierpiński Curve Julia Sets of Rational Maps

CMFT 6 No.2 (2006), 317–327. [ISSN 1617-9447]

Abstract. In this note we prove that the so-called Sierpiński holes in the parameter plane $0 < |\lambda| < \infty$ of the McMullen family $F_\lambda(z) = z^m + \lambda/z^\ell$, $m \geq 2$ and $\ell \geq 1$ fixed, are simply connected, and determine the total number of these domains.

Keywords. Julia set, quasiconjugation, quasiconformal mapping, Mandelbrot set, McMullen family, Sierpiński hole, Sierpiński curve.

2000 MSC. 37F10, 37F15, 37F45.

Received. February 14, 2006.