

RAUZY FRACTALS

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Let A be an alphabet over 3 letters and A^* be the set of finite and non-empty words over A . A *substitution* σ is a map from A to A^* . It is known that to any substitution we can associate a shift symbolic dynamical system. It is known that for a large class of substitutions σ , the associated dynamical system is measure theoretically isomorphic to an exchange of pieces over a compact set \mathcal{K}_σ of \mathbb{R}^2 . This set is called Rauzy Fractal and has many beautiful properties. In particular \mathcal{K}_σ induces a periodic tiling of the plane and moreover its boundary is fractal. In this work, we will present some geometrical and dynamical properties of the Rauzy fractal and its boundary.