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Tyler M. White* (tmwhite@nvcc.edu). *Topological Mixing Tilings of \mathbb{R}^2 Generated by a Generalized Substitution.*

Kenyon, in his 1996 paper, gave a class of examples of tilings of \mathbb{R}^2 constructed from generalized substitutions. These examples are topologically conjugate to self-similar tilings of the plane (with fractal boundaries). I have proven that an infinite sub-family of Kenyon's examples are topologically mixing. These are the first known examples of topologically mixing substitution tiling dynamical systems of \mathbb{R}^2 . (Received January 25, 2014)