

Maximally non-tame SL_2 -tilings

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Like frieze patterns, SL_2 -tilings satisfy the diamond rule. Like frieze patterns, SL_2 -tilings come from paths in the Farey graph, but only the tame ones. Much less is known about wild (non-tame) SL_2 -tilings. We will demonstrate SL_2 -tilings that are maximally non-tame: we prove that the maximum wild density of an integer SL_2 -tiling is $2/5$ and present SL_2 -tilings over $\mathbb{Z}/N\mathbb{Z}$ with wild density 1. Moreover, the wildest integral SL_2 -tilings is also maximally non-tame in terms of rank.

