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THURSTON LAMINATIONS WHICH ARE INVARIANT UNDER THE MAP $\sigma_3 : S^1 \to S^1$

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Abstract. W. Thurston used laminations of the unit disk (a special collection of disjoint chords called leaves) as a model for quadradic Julia sets and the Mandelbrot set. One fundamental result in the study of quadradic laminations is known as the Central Strip Lemma. This lemma provides a strong bound on the behaviour of the leaves under iteration of the map $\sigma_2 : \mathbb{S}^{1\!\!\!/} \to \mathbb{S}^{1\!\!\!/}$ defined by $\sigma_2(t) = 2t \pmod 1$. We will generalize this lemma to cubic laminations under the map $\sigma_3(t) = 3t \pmod 1$ and discuss applications of this generalization to cubic laminations and the resulting constraints upon cubic Julia sets.

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