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Topology of 2D Self-Affine Tiling.

We give a criterion for the tiles in a self-affine tiling of R^2 to be disk-like, i.e. homeomorphic with a closed disk. As special cases, our criterion includes earlier ones concerning disk-like \mathbb{Z}^2 -tiles and crystallographic reptiles, and can be applied to substitution tilings and other self-affine tilings. (Received December 30, 2010)