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Comparing self-avoiding walks and polygons on hyperbolic Coxeter groups.

We consider a class of hyperbolic Coxeter groups corresponding to tilings of the hyperbolic plane, and compare the number of self-avoiding walks and polygons (SAWs and SAPs, respectively). One way to measure the number of SAWs (resp. SAPs) is using the connective constant μ_w (resp. μ_p). The connective constant is defined as the limit as $n \rightarrow \infty$ of the n -th root of w_n (resp. p_n), the number of SAWs (resp. SAPs) of length n . We show that there are more walks than polygons, i.e. $\mu_p < \mu_w$. (Received September 21, 2006)