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Amol Aggarwal* (amolaggarwal@g.harvard.edu), Harvard Science Center, 1 Oxford Street, Office 324F, Cambridge, MA 02138. *Universality for Lozenge Tiling Local Statistics.*

We consider uniformly random lozenge tilings of essentially arbitrary domains and show that the local statistics of this model around any point in the liquid region of its limit shape are given by the infinite-volume, translation-invariant, extremal Gibbs measure of the appropriate slope. In this talk, we outline a proof of this result, which proceeds by locally coupling a uniformly random lozenge tiling with a model of Bernoulli random walks conditioned to never intersect. Central to implementing this procedure is to establish a local law for the random tiling, which states that the associated height function is approximately linear on any mesoscopic scale. (Received September 09, 2019)