

In this talk, based on joint work with Erik Duse, Istvan Prause and Xiao Zhong, we study scaling limits of different random tilings and other dimer models. It turns out that the geometry of the limiting regions, i.e. the boundaries between the ordered and disordered (or frozen and liquid) domains can be described by a non-linear and degenerate Beltrami equation with quite curious properties.

Moreover, the Beltrami approach allows a very detailed understanding of the frozen boundaries. In particular, with it we can show that the geometry of frozen boundaries is universal among all dimer models.