Institut für Diskrete Mathematik

Combinatorics Seminar

Friday 1st December 12:30

Online meeting (Webex)

Enumeration of rectangulations

Éric Fusy

(LIGM)

I will present results for the exact and asymptotic enumeration of generic rectangulations (i.e., tilings of a rectangle by rectangles, with no point where 4 rectangles meet, considered under equivalence relation in a weak or strong form). These can be set in correspondence to models of decorated planar maps (bipolar orientations in the weak form, transversal structures in the strong form) that themselves can be encoded by certain quadrant walks via a bijection due to Kenyon, Miller, Sheffield and Wilson. I will also mention an extension of the results to non-generic rectangulations, which yields a continuum of models of random planar lattices that get closer to a regular lattice.

Joint work with Erkan Narmanli and Gilles Schaeffer

Meeting link:

https://tugraz.webex.com/tugraz/j.php?MTID=mab523a645de428d5301998280dc510ed

Joshua Erde, Mihyun Kang