ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

Invitation to a Talk

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“Rectangulations, posets, permutations, and patterns”

V.1.07 Wednesday, 18 October 2023 12:00 p.m.

Abstract

A rectangulation is a partition of a rectangle into rectangles. There are two natural ways to define "structurally identical" rectangulations: via rectangle–segment contacts (the weak equivalence), and via rectangle–rectangle contacts (the strong equivalence). Guillotine rectangulations are rectangulations with a simple recursive structure. In this talk, I will briefly present recent results concerning combinatorics of rectangulations:
(1) A uniform treatment of representation of weak and strong rectangulations by posets and permutations,
(2) A permutation class in bijection with strong guillotine rectangulations,
(3) Enumeration of weak guillotine rectangulations that avoid certain patterns.

This research was conducted as a part of the project Generic Rectangulations funded by FWF. Parts (1) and (2) are based on a joint work with Jean Cardinal, Stefan Felsner, and Éric Fusy, part (3) is based on a joint work with Cyril Banderier.

Clemens Heuberger and the Department of Mathematics look forward to seeing you at the talk!