ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

Invitation to the Doctoral Seminar

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"Rectangulations: Structure and Enumeration"

https://classroom.aau.at/math/stat

Wednesday, 19 May 2021

10:00 a.m.

Abstract

A rectangulation is a partition of a rectangle into finitely many smaller rectangles. As a basic model, rectangulations find applications in architectural design, modern cartography, scientific data visualisation, VLSI design, etc.; they also frequently occur in visual art. Despite their elementary definition, the combinatorial analysis and enumeration of structurally different rectangulations is quite challenging. To be more precise, there are several ways to define structurally equivalent rectangulations, and there are several important special cases; the analysis of different settings ranges from nearly elementary to very difficult. In our recently started project we plan to investigate several problems around this topic, which includes enumeration of rectangulations, their representation by permutation classes, links to other combinatorial and algebraic structures, etc. In my talk I will present classical results, possible research directions, and some recent developments. Bachelor and Master students are explicitly invited to attend the talk!

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