Graz University of Technology

Institut für Optimierung und Diskrete Mathematik

Vortrag im Seminar Diskrete Mathematik und Optimierung

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Seminarraum C208, Steyrergasse 30, 2. Stock

Drawings of stack triangulations in the plane

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Stack triangulations appear as natural objects when defining an increasing family of triangulations by successive additions of vertices. We consider two different probability distributions for such objects. We represent, or "draw" these random stack triangulations in the plane $\mathbb{R}^2$ and study the asymptotic properties of these drawings, viewed as random compact metric spaces. We also look at the occupation measure of the vertices, and show that for these two distributions it converges to some random limit measure. The key ingredient is an encoding of the combinatorial structure of stack triangulations by ternary trees, which we enrich to obtain the relevant additional geometric information.

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