Institut für Optimierung und Diskrete Mathematik

Vortrag im Seminar Diskrete Mathematik und Optimierung

4.6. 2013, 14:15

Seminarraum C208, Steyrergasse 30, 2. Stock

Flip Distances in Triangulations

Oswin Aichholzer

(Institute for Software Technology, TU Graz)

A flip in a (geometric) triangulation T is the operation of replacing an edge of T by a different edge, such that the resulting graph is again a triangulation. The flip distance between two triangulations of a given domain (point set, polygon, convex polygon, ...) is the smallest number of flips that is necessary to transform one triangulation into the other.

Computing the flip distance is a challenging research problem with quite some history and several recent developments. We will survey relations of flip sequences to other combinatorial structures and present latest results on the hardness of computing the flip distance in the case of point sets and simple polygons.

Mihyun Kang und Bettina Klinz