Triangulating the Kinetic Data

Tomáš Vomáčka

University of West Bohemia, Faculty of Applied Sciences

Abstract

Delaunay triangulation of moving points (also called the kinetic Delaunay triangulation – KDT) is a time-dependent data structure designed to retain the Delaunay property despite the movement of the underlying points. This kind of structure may be found useful in various areas of computational geometry and computer graphics, including for instance collision detection, path planning, PDE solving and others.

During this seminar, the basic principles of the KDT will be explained as well as some enhancments in the fields of simplification and robustness enhancement of the base algorithm.