

Povzetek

V diplomskem delu obravnavam triangulacije in njihovo konstrukcijo. V prvem poglavju je predstavljen Voronoiev diagram in njegove lastnosti. Opišem algoritem za konstrukcijo Voronoievega diagrama, na koncu tega poglavja pa obravnavam posebne primere.

V drugem poglavju predstavim Delaunayevio triangulacijo. Najprej opišem nekaj osnovnih definicij in lastnosti, nato pa predstavim algoritem za konstrukcijo Delaunayevih triangulacij in analiziram njegovo delovanje.

V tretjem poglavju predstavim idejo Ruppertovega algoritma, ki vrne izboljšane Delaunayeve triangulacije.

Ključne besede: triangulacija, Voronoiev diagram, Delaunayeva triangulacija, konstrukcija triangulacij, teren

MSC2010: 68U05, 65D18, 65D07.

Abstract

Construction of triangulations is being considered. Section one focuses on the Voronoi diagram and on its properties. The algorithm for the construction is presented and at the end of this section some of the special cases are discussed.

In section two the Delaunay triangulation and its properties are presented. The construction of Delaunay triangulations is implemented and the analysis of the algorithm is done.

In section three the main idea of Ruppert's algorithm is described.

Key words: triangulation, Voronoi diagram, Delaunay triangulation, construction of triangulation, terrain

Literatura

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