

عنوان مقاله:

A Comparison Between the Efficiency of Ordinary and Supremum-Metric Voronoi Diagrams in Discrete Space

محل انتشار:

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خلاصه مقاله:

In this paper we scrutinize the considerations of generating voronoi diagrams in discrete spaces and compare the process of extracting two specific kinds of voronoi diagrams in some aspects. One is ordinary voronoi diagram which is defined with the use of Euclidean distance between two points, while the other is supremum-metric voronoi diagram, a derivation of Minkowski-metric voronoi diagram. We show that using supremum-metric voronoi diagram relieves us from a lot of computational complications and helps us to reduce the execution time. Finally we examine the authenticity of the presented discussion with an example.

کلمات کلیدی:

Path Planning Problem, Voronoi Diagram, Visibility Graph

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