1. Record Nr. UNINA9910138912803321

Titolo	2009 6th International Symposium on Voronoi Diagrams
Pubbl/distr/stampa	[Place of publication not identified], : IEEE, 2009
ISBN	9781509070190 1509070192 9780769537818 0769537812
Descrizione fisica	1 online resource
Disciplina	620.00151
Soggetti	Engineering mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Sommario/riassunto	In this paper, we show a graph isomorphism between a dual graph of the Delaunay graph of the sampled points and the medial axis of the sampled features. This dual graph captures the fact that two Delaunay triangles share two vertices or an edge. Then, we apply it to the computation of the medial axis of the features selected in an image. The computation of the medial axis of images is of interest in applications such as mapping, climatology, change detection, medicine, etc. This research work provides a way to automate the computation of the medial axis transform of the features of color 2D images. In color images, various features can be distinguished based on their color. The features are thus extracted as object borders, which are sampled in order to compute the medial axis transform. We present also a prototype application for the completely automated or semi-automated processing of (satellite) imagery and scanned maps. Applications include coastline extraction, extraction of fields, clear cuts, clouds, as well as heating or pollution monitoring and dense forest mapping among others.