

Computing The Euclidean Distance Transform On A Linear Array Of Processors

Gavrilova, ML; Alsuwaiyel, MH

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King Fahd University of Petroleum & Minerals

<http://www.kfupm.edu.sa>

Summary

Given an $n \times n$ binary image of white and black pixels, we present an optimal parallel algorithm for computing the distance transform and the nearest feature transform using the Euclidean metric. The algorithm employs the systolic computation to achieve $O(n)$ running time on a linear array of n processors.

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