

ハフ変換を用いた距離画像から3次元形状への変換^{*,**}

西尾孝治・小堀研一^{***}・久津輪敏郎

工学研究科 電気電子工学専攻

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Reconstruction of Three Dimensional Object from Range Image by using Hough Transformation

by

Koji NISHIO, Ken-ichi KOBORI and Toshiro KUTSUWA

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Abstract

We propose an automatic modeling method that reconstructs three dimensional shape from range data called Z-map. Three dimensional CAD and CG application needs many procedure to define a three dimensional shape in a computer. Today, three dimensional image capturing techniques have progressed. It is easy to get Z-map data with these techniques. Z-map data is not a three dimensional shape but a group of points that represents distance form viewing point to a real object. It will be very convenient, in some applications, if we can transform the Z-map data into three dimensional shape data. The reconstruction method that we propose in this paper has robustness because Hough transformation is applied to its main process.

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- * 情報処理学会グラフィクスとCAD研究会にて口頭発表
(情報処理学会研究報告97-CG-88-7pp. 37-42,1997.12.18, 於 東京電機大学)
 - ** 情報処理学会第56回全国大会にて口頭発表
(第56回全国大会講演論文集 (4) pp. 193-194,1998.03.18, 於 中央大学)
 - *** 大阪工業大学情報科学部情報処理科