



FITTING A SURFACE OF QUADRATIC PATCH

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Abstract

Fitting surface to given points in the plane is a problem that arises in many application areas, e.g. computer graphics; coordinate metrology, petroleum engineering, and statistics [G. Walter, H. S. Gene and Rolf, Fitting of circles and ellipses least squares solution, Technical Report 217, Institute fur Wissenschaftliches Rechnen, ETH Zurich, 1994, Available via anonymous ftp from ftp.inf.ethz.ch as doc/techreports/1994/217.ps]. In this paper, we present a new technique by using least square method to fit a surface of quadratic patch through a given set of six points which is a set of surface points.

Keywords and phrases: least square method, surface patch and quadratic surface.

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