

Approximation of Surfaces by Fairness Bicubic Splines

A. Kouibia and M. Pasadas

In this paper we present an approximation method of surfaces by a new type of splines, which we call *fairness bicubic splines*, from a given Lagrangian data set. An approximating problem of surface is obtained by minimising a quadratic functional in a parametric space of bicubic splines. The existence and uniqueness of this problem are shown as long as a convergence result of the method is established. We analyse some numerical and graphical examples in order to prove the validity of our method.