Alfeld, Peter

A bivariate C^2 Clough-Tocher scheme. (English) Zbl 0597.65005

Comput. Aided Geom. Des. 1, 257-267 (1984).

Let $\mathcal{D}$ be a two-dimensional domain that has been triangulated. Using the technique of his earlier paper [ibid. 1, 169-181 (1984; Zbl 0566.65003)] the author constructs a bivariate $\mathcal{C}^2$-interpolant on $\mathcal{D}$ that requires $\mathcal{C}^2$ data at the scattered points. The scheme is local and has cubic precision.

Reviewer: V.V.Vasil'ev

MSC:

65D05 Numerical interpolation
41A05 Interpolation in approximation theory
41A63 Multidimensional problems (should also be assigned at least one other classification number from Section 41-XX)

Keywords:

Clough-Tocher; bivariate interpolation; triangulation; piecewise polynomials

Software:

REDUCE

Full Text: DOI

References:

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