Abstract

Here a special (0, 2; 0, 3) lacunary interpolation scheme is considered where the data are
prescribed unevenly at even and odd nodes of an arbitrarily defined partition of the unit interval I
=[0,1].

The problem described as, we have the function values and second derivatives at odd nodes,
whereas function values and the third derivatives at even nodes are known, we proved that there
exists a unique quantic spline of continuity class C2 by solving the above mentioned
interpolation scheme.

Furthermore, it is also proved that this spline function converges to the given function with the
desired order of accuracy.

References
Lacunary Interpolation at Odd and Even Nodes


Index Terms

Computer Science Information Sciences

Keywords

Lacunary interpolation, splines.