On cardinal spline interpolation

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Dedicated to F. Tröltzsch on the occasion of his sixtieth birthday

Abstract

In the present paper it is shown that the interpolation problem for multiple knot cardinal splines subject to general interpolation conditions has a unique solution with polynomial growth if the data grow correspondingly provided a certain determinantal condition is satisfied. An application to H^s error estimates for the interpolation with periodic multiple knot splines is given.

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