BASIS OF SPLINES ASSOCIATED WITH SOME SINGULAR DIFFERENTIAL OPERATORS

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Abstract

Functions being piecewisely in $\mathrm{Ker}(D^k DpD)$ are a special case of Chebyshev splines having one nontrivial weight and also a special case of singular splines. An algorithm is designed which enables calculating with related B–splines and their derivatives. If $p(t)$ is approximated by a piecewise constant, an interesting recurrence for calculating with polynomial B–splines is obtained.

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