

# GB-splines of Arbitrary Order \*

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**Abstract.** Explicit formulae and recurrence relations for the calculation of generalized B-splines (GB-splines) of arbitrary order are given. We derive main properties of GB-splines and their series, i.e. partition of unity, shape preserving properties, invariance with respect to affine transformations, etc. It is shown that such splines have the variation diminishing property and are Chebyshevian splines.

**Keywords:** Splines, GB-splines, weak Chebyshevian systems, variation diminishing, shape preserving approximation

\* Supported by grant BRG/16/2540 of the Thailand Research Fund