

De Boor, Carl

A practical guide to splines. Rev. ed. (English) [Zbl 0987.65015](#)
Applied Mathematical Sciences. 27. New York, NY: Springer. xviii, 346 p. (2001).

This is a revised edition of a former book (1978; [Zbl 0406.41003](#)). It differs from the original version with respect to the typesetting in $\text{T}_{\text{E}}\text{X}$, to upgrading FORTRAN programs to FORTRAN 77, and to by MATLAB redrawn figures. Various errors have been corrected, and many informal statements have been provided with proofs. Major changes have occurred in chapter IX-XI on developing B -spline theory directly from recurrence relations.

This book is a classical one with respect to calculating polynomial splines. The listed FORTRAN 77 subroutines and main programs are available via netlib. The references might not be fully up-to-date. The author is an outstanding spline expert. Thus the book ought to belong to every university library and to anyone interested in spline theory and applications.

Reviewer: [Helmuth Späth \(Oldenburg\)](#)

MSC:

- [65D07](#) Numerical computation using splines
- [65-02](#) Research exposition (monographs, survey articles) pertaining to numerical analysis
- [41-02](#) Research exposition (monographs, survey articles) pertaining to approximations and expansions
- [41A15](#) Spline approximation

Cited in **1** Review
Cited in **638** Documents

Keywords:

[FORTRAN 77](#); [MATLAB](#); [textbook](#); [B-spline](#); [polynomial splines](#)

Software:

[Matlab](#); [Netlib](#)