

**Preparata, Franco P.; Shamos, Michael I.**

**Computational geometry. An introduction.** (English) [Zbl 0759.68037](#)

Texts and Monographs in Computer Science. New York etc.: Springer-Verlag. XIV, 398 p. (1985).

This is the second printing (death-line in 1988) of a central and excellent book on computational geometry [first printing in 1985 by *F. P. Preparata* and *M. I. Shamos*, Text and monographs in computer science, New York, Springer-Verlag (1985; [Zbl 0575.68059](#))]. Minor errors are corrected and additional comments are given. Also some new topics are discussed. Among others this are the following: The bridged chain method in geometric searching (optimal techniques), iterated search and fractional cascading, an expanded discussion of fractional cascading, and the linear-time construction of the Voronoi diagram of a convex polygon. In the meantime several other open questions have been solved, for instance optimal triangulation, so further work will be necessary to give an up-to-date third printing. Some new papers are added in the list of references.

Reviewer: [H.-D.Hecker \(Jena\)](#)

**MSC:**

- [68-01](#) Introductory exposition (textbooks, tutorial papers, etc.) pertaining to computer science
- [68Q25](#) Analysis of algorithms and problem complexity
- [68U05](#) Computer graphics; computational geometry (digital and algorithmic aspects)

Cited in **2** Reviews  
Cited in **630** Documents