

Computational Geometry

Prof. Dr. Georg Umlauf

Who am I?

Prof. Dr. Georg Umlauf

– Computer graphics, geometric algorithms –

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Who are you?



Please fill out the list...

Lecture

Lecture

- Wednesday: 14:00 – 15:30
- Room: F 022 (HTWG)

Practical Assignments

- Wednesday: 15:45 – 17:15
- Room: F 033 (HTWG)
- Deadlines: online

Lecture

Lecture material

- Chapter-wise online:

`http://www-home.htwg-konstanz.de/
~umlauf/Intern/CompGeo1516.html`

- Assignments online:

`http://www-home.htwg-konstanz.de/
~umlauf/Intern/CompGeo1516.html`

Content

- §0 Introduction
- §1 Motivation, basics
- §2 Line segment intersection
- §3 Binary space partitions
- §4 Range queries
- §5 Point location
- §6 Polygon triangulation
- §7 Voronoi diagrams & Delaunay triangulations
- §8 Convex hulls in 3d
- §9 Window queries

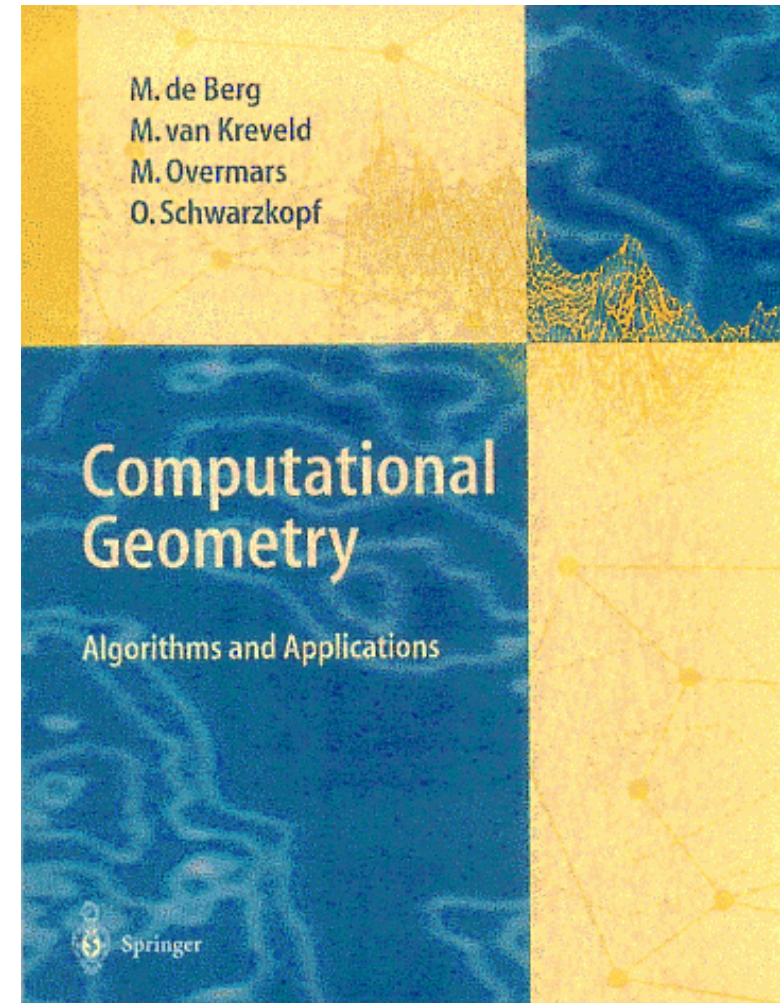
Literature

Text book:

Computational Geometry.

M. de Berg, O. Schwarzkopf, M. van Kreveld und M. Overmars, Springer.
2. Auflage, 2000.

Price: ~ 38€

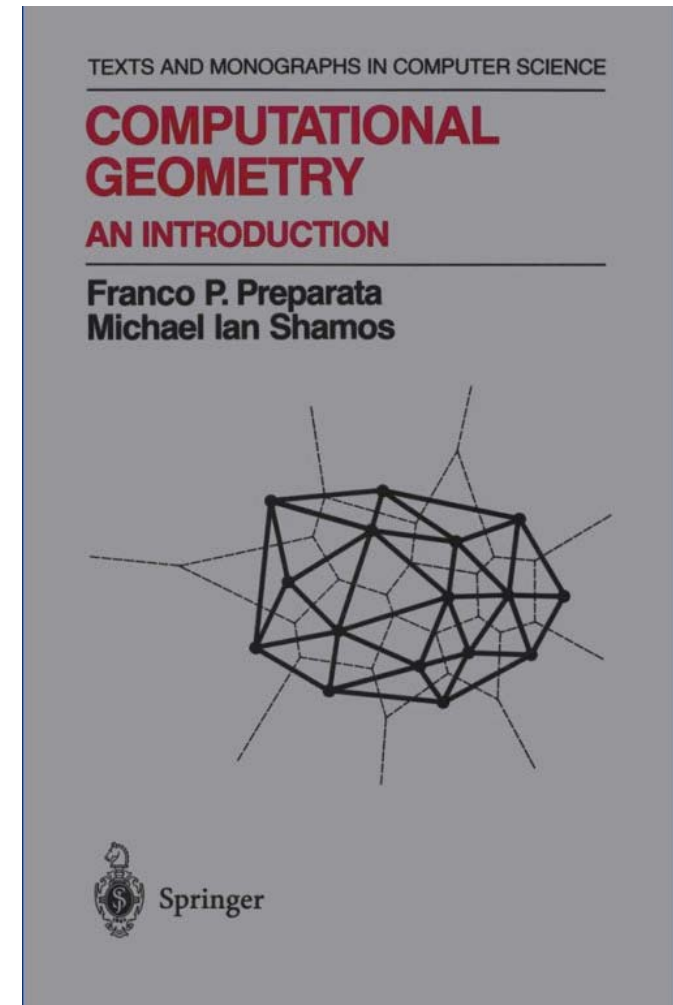
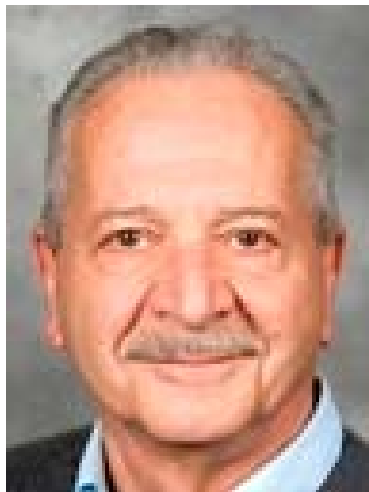


Literature

Computational Geometry – An Introduction.

F.P. Preparata und M.I. Shamos, Springer,
2. Auflage, 1988.

Price: ~ 100€



Literature

Algorithmische Geometrie: Grundlagen, Methoden, Anwendungen.

Rolf Klein, Springer, 2. Auflage, 2005.

Price: ~ 35€

