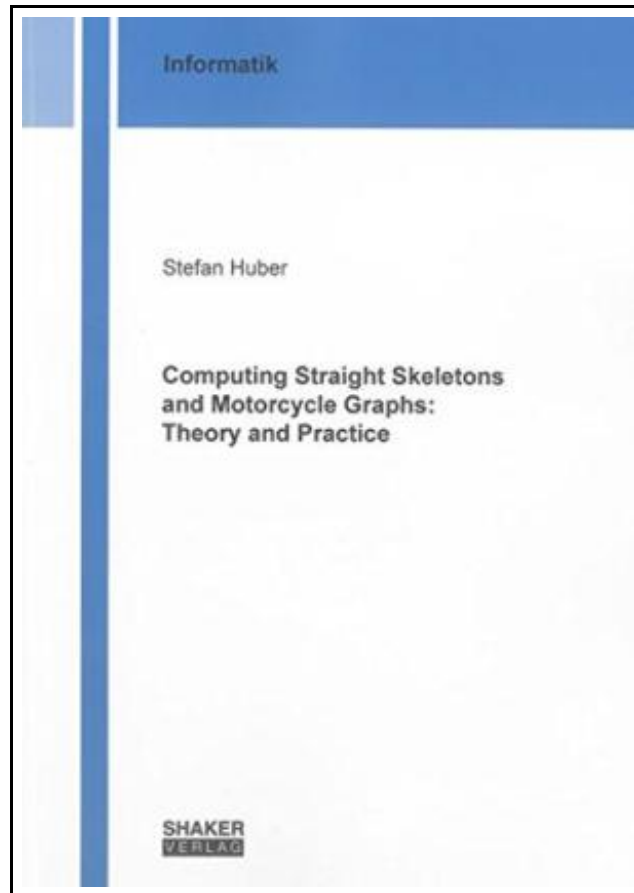


# Computing Straight Skeletons and Motorcycle Graphs: Theory and Practice



Filesize: 3.95 MB

## ***Reviews***

*Complete guideline for ebook lovers. Better then never, though i am quite late in start reading this one. Its been printed in an remarkably simple way in fact it is only right after i finished reading this book through which in fact transformed me, alter the way in my opinion.*

***(Montserrat Runolfsdottir)***

## COMPUTING STRAIGHT SKELETONS AND MOTORCYCLE GRAPHS: THEORY AND PRACTICE



Shaker Verlag Mai 2012, 2012. Taschenbuch. Book Condition: Neu. Neuware - The straight skeleton is a geometric structure which was introduced to the field of computational geometry in the mid-90s. Similar to the generalized Voronoi diagram, it features a rich variety of applications in diverse domains, such as the computation of mitered offset curves, the generation of roof models and terrains, the reconstruction of three-dimensional bodies from parallel slices, the topologypreserving contraction of areas in geographic maps, and many more. However, at the moment one faces a significant gap between the best known lower bound on the time complexity of computing straight skeletons and the most efficient algorithms and implementations. Hence, in order to bridge the gap between the current state of theory and its real-world applications in science and industry, we need more efficient algorithms and implementations. The main goal of this thesis was to lay the theoretical foundations that finally allowed us to develop the straight-skeleton algorithm behind Bone, our current state-of-the-art implementation of straight skeletons. After an elaborate survey on the current state of research on straight skeletons and its geometric properties, we start our investigations with an analysis of the triangulation-based approach by Aichholzer and Aurenhammer. The results obtained motivated us to pursue an approach that involves the generalization of the so-called motorcycle graph from non-degenerate polygons to arbitrary planar straight-line graphs. Using this generalization, we were able to extend the nonprocedural characterization by Cheng and Vigneron to planar straight-line graphs. As a side-product, we obtain an approach to straight skeletons by means of 3D graphics hardware. The main application, however, is a novel wavefront-type algorithm that is (i) suitable for implementation, (ii) efficient in time and space for real-world applications and (iii) operates on arbitrary planar straight-line graphs. The worst-case complexity of our algorithm is...



**Read Computing Straight Skeletons and Motorcycle Graphs: Theory and Practice Online**



**Download PDF Computing Straight Skeletons and Motorcycle Graphs: Theory and Practice**

## Other Books



### **Psychologisches Testverfahren**

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG,...

[Download ePub »](#)



### **History of the Town of Sutton Massachusetts from 1704 to 1876**

Createspace, United States, 2015. Paperback. Book Condition: New. annotated edition. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.This version of the History of the Town of Sutton Massachusetts...

[Download ePub »](#)



### **Children s Educational Book: Junior Leonardo Da Vinci: An Introduction to the Art, Science and Inventions of This Great Genius. Age 7 8 9 10 Year-Olds. [Us English]**

Createspace, United States, 2013. Paperback. Book Condition: New. 254 x 178 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.ABOUT SMART READS for Kids . Love Art, Love Learning Welcome. Designed to...

[Download ePub »](#)



### **Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625)**

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now...

[Download ePub »](#)



### **Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselves By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625)**

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you...

[Download ePub »](#)