Polyhedral and Algebraic Methods in Computational Geometry

By Michael Joswig, Thorsten Theobald

Springer London Ltd, United Kingdom, 2013. Paperback. Book Condition: New. 2013 ed.. 229 x 155 mm. Language: English . Brand New Book ***** Print on Demand *****.Polyhedral and Algebraic Methods in Computational Geometry provides a thorough introduction into algorithmic geometry and its applications. It presents its primary topics from the viewpoints of discrete, convex and elementary algebraic geometry. The first part of the book studies classical problems and techniques that refer to polyhedral structures. The authors include a study on algorithms for computing convex hulls as well as the construction of Voronoi diagrams and Delone triangulations. The second part of the book develops the primary concepts of (non-linear) computational algebraic geometry. Here, the book looks at Grobner bases and solving systems of polynomial equations. The theory is illustrated by applications in computer graphics, curve reconstruction and robotics. Throughout the book, interconnections between computational geometry and other disciplines (such as algebraic geometry, optimization and numerical mathematics) are established. Polyhedral and Algebraic Methods in Computational Geometry is directed towards advanced undergraduates in mathematics and computer science, as well as towards engineering students who are interested in the applications of computational geometry.

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The book is fantastic and great. It is filled with wisdom and knowledge I am just easily will get a enjoyment of looking at a composed publication.
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