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Altri autori (Persone)	ChenFalai WangDongming
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Nota di contenuto	CONTENTS ; Preface ; Chapter 1 Algebraic Methods in Computer Aided Geometric Design: Theoretical and Practical Applications ; 1. Introduction ; 2. Implicitization and Parametrization Problems ; 3. Applications in CAGD ; 4. Practical Performance of Algebraic Techniques in CAGD References Chapter 2 Constructing Piecewise Algebraic Blending Surfaces ; 1. Introduction ; 2. Notations and Preliminaries ; 3. Direct Method ; 4. Grobner Basis Method ; 5. Wu's Method ; 6. Syzygy Module Method ; 7. Concluding Remark Chapter 3 Rational Curves and Surfaces: Algorithms and Some Applications 1. Introduction ; 2. Algebraic Plane Curves ; 3. Rational Plane Curves ; 4. Parametrization of Rational Plane Curves ; 5. Properness and Inversion ; 6. Reparametrizations of Rational Plane Curves

7. Real Rational Curves
 Rational Surfaces
 ; Chapter 4 Panorama of Methods for Exact Implicitization of Algebraic
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 ; 1. Introduction ; 2. Exact Implicitization of Algebraic
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 Grobner Bases
 5. Characteristic Sets ; 6. Perturbations ;
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 ; 8. Multidimensional Newton Formulae and Symmetric Functions
 ; 9. Eigenvalue Method ; 10. Conclusion ;
 Chapter 5 Implicitization and Offsetting via Regular Systems
 1. Introduction

Sommario/riassunto

This book contains tutorial surveys and original research contributions
 in geometric computing, modeling, and reasoning. Highlighting the
 role of algebraic computation, it covers: surface blending,
 implicitization, and parametrization; automated deduction with Clifford
 algebra and in real geometry; and exact geometric computation. Basic
 techniques, advanced methods, and new findings are presented
 coherently, with many examples and illustrations. Using this book the
 reader will easily cross the frontiers of symbolic computation, computer
 aided geometric design, and automated reasoning. The boo
