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Forms, and InterPOLation; 1. Introduction; 2. Algebraic Definition of Polar Curves; 3. Interpolation; 4. Conclusion and a Few Historical Remarks; Chapter 7. Pyramid Patches Provide Potential Polynomial Paradigms; 1. Introduction; 2. Linear Independence of Families of Lineal Polynomials; 3. B-patches for  $H_n(\mathbb{R}^s)$ ; 4. Other Pyramid Schemes; 5. B-patches for  $H_n(\mathbb{R}^s)$ ; 6. Degree Raising, Conversion and Subdivision for B-patches; References; Chapter 8. Implicitizing Rational Surfaces with Base Points by Applying Perturbations and the Factors of Zero Theorem; 1. Introduction; 2. Mathematical Preliminaries; 3. The Factors of Zero Theorem; 4. Implicitization with Base Points Using the Dixon Resultant; 5. An Implicitization Example; 6. Conclusion and Open Problems; References; Chapter 9. Wavelets and Multiscale Interpolation; 1. Introduction; 2. Wavelets and Multiresolution Analysis; 3. Fundamental Scaling Functions; 4. Symmetric and Compactly Supported Scaling Functions; 5. Subdivision Schemes; 6. Regularity; References; Chapter 10. Decomposition of Splines; 1. Introduction; 2. Decomposition; 3. Decomposing Splines; 4. Box Spline Decomposition; 5. Data Reduction by Decomposition; References; Chapter 11. A Curve Intersection Algorithm with Processing of Singular Cases: Introduction of a Clipping Technique; 1. Introduction; 2. Clipping; 3. Singular Cases; 4. Examples; 5. Extension to Surfaces; 6. Conclusion; References; Chapter 12. Best Approximations of Parametric Curves by Splines

Sommario/riassunto

Mathematical Methods in Computer Aided Geometric Design II