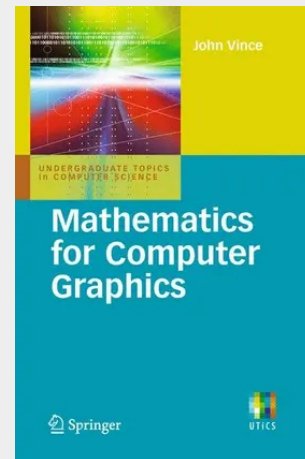


Mathematics for Computer Graphics

John Vince explains a wide range of mathematical techniques and problem-solving strategies associated with computer games, computer animation, virtual reality, CAD, and other areas of computer graphics. Covering all the mathematical techniques required to resolve geometric problems and design computer programs for computer graphic applications, each chapter explores a specific mathematical topic prior to moving forward into the more advanced areas of matrix transforms, 3D curves and surface patches. Problem-solving techniques using vector analysis and geometric algebra are also discussed. All the key areas are covered including: Numbers, Algebra, Trigonometry, Coordinate geometry, Transforms, Vectors, Curves and surfaces, Barycentric coordinates, Analytic geometry. Plus – and unusually in a student textbook – a chapter on geometric algebra is included.

John Vince explains a wide range of mathematical techniques and problem-solving strategies associated with computer games, computer animation, virtual reality, CAD, and other areas of computer graphics. Covering all the mathematical techniques required to resolve geometric problems and design computer programs for computer graphic applications, each chapter explores a specific mathematical topic prior to moving forward into the more advanced areas of matrix transforms, 3D curves and surface patches. Problem-solving techniques using vector analysis and geometric algebra are also discussed. All the key areas are covered including: • Numbers • Algebra • Trigonometry • Coordinate geometry • Transforms • Vectors • Curves and surfaces • Barycentric coordinates • Analytic geometry. Plus – and unusually in a student textbook – a chapter on geometric algebra is included. With plenty of worked examples, the book provides a sound understanding of the mathematics required for computer graphics, giving a fascinating insight into the design of computer graphics software, and setting the scene for further reading of more advanced books and technical research papers.



32,05 €

29,95 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781849960229

Medium: Buch

ISBN: 978-1-84996-022-9

Verlag: Springer

Erscheinungstermin: 26.02.2010

Sprache(n): Englisch

Auflage: 3. Auflage 2010

Serie: Undergraduate Topics in Computer Science

Produktform: Kartoniert

Gewicht: 970 g

Seiten: 293

Format (B x H): 155 x 235 mm

