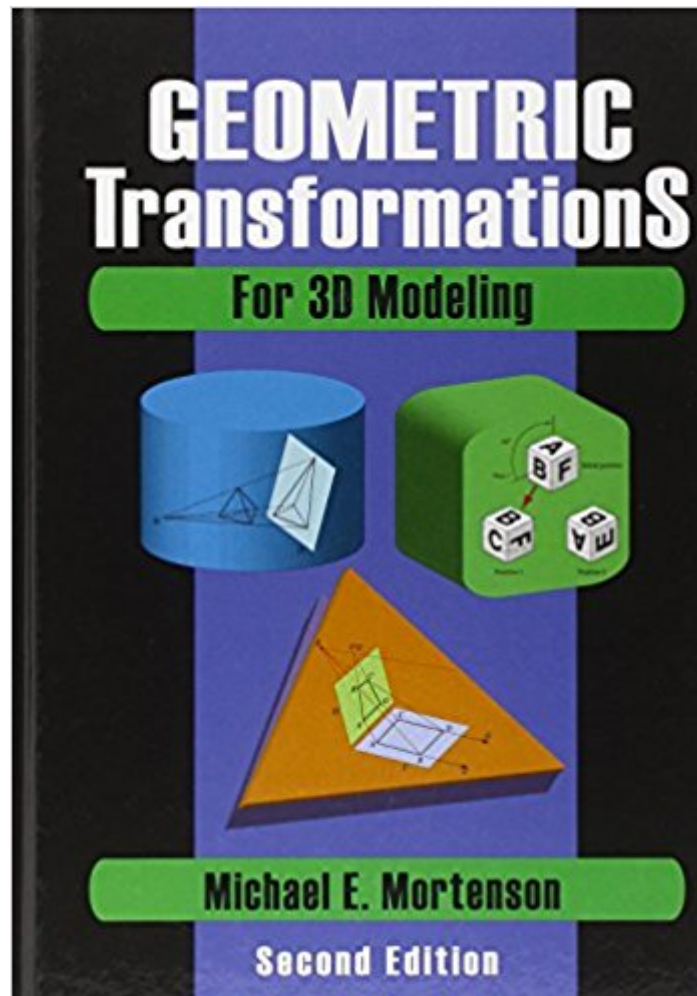




Ebook Directory
the best source of ebook

The book was found

Geometric Transformations For 3D Modeling



Synopsis

Written from a mathematical standpoint accessible to students, teachers, and professionals studying or practicing in engineering, mathematics, or physics, the new second edition is a comprehensive introduction to the theory and application of transformations. Presenting the more abstract foundation material in the first three chapters, *Geometric Transformations in 3D Modeling* reduces the clutter of theoretical derivation and development in the remainder of the text and introduces the operational and more application-oriented tools and concepts as the need arises. It assumes the reader has already taken analytic geometry and first-year calculus and has a working knowledge of basic matrix and vector algebra. This self-contained resource is sure to appeal to those working in 3D modeling, geometric modeling, computer graphics, animation, robotics, and kinematics. Explores and develops the subject in much greater breadth and depth than other books, offering readers a better understanding of transformation theory, the role of invariants, the uses of various notation systems, and the relations between transformations. Describes how geometric objects may change position, orientation, or even shape when subjected to mathematical operations, while properties characterizing their geometric identity and integrity remain unchanged. Presents eigenvalues, eigenvectors, and tensors in a way that makes it easier for readers to understand. Contains revised and improved figures, with many in color to highlight important features. Provides exercises throughout nearly all of the chapters whose answers are found at the end of the book.

Book Information

Hardcover: 380 pages

Publisher: Industrial Press, Inc.; 2 edition (April 1, 2007)

Language: English

ISBN-10: 0831133384

ISBN-13: 978-0831133382

Product Dimensions: 7.3 x 1.1 x 10 inches

Shipping Weight: 2 pounds (View shipping rates and policies)

Average Customer Review: 4.5 out of 5 stars 2 customer reviews

Best Sellers Rank: #3,065,047 in Books (See Top 100 in Books) #93 in Books > Science & Math > Mathematics > Transformations #556 in Books > Computers & Technology > Graphics & Design > 3D Graphics #1153 in Books > Computers & Technology > Databases & Big Data > Data Modeling & Design

Customer Reviews

Michael E. Mortenson writes and does independent research in 3D geometric modeling and computer-aided design. He is a former research scientist with a major aerospace corporation and the author of several highly successful textbooks, including Mathematics for Computer Graphics Applications, Second Edition and Geometric Modeling, Third Edition. Mortenson is a graduate of the UCLA School of Engineering.

Excellent Book! Quite readable, and gives historical and practical insights into the mathematics being presented. I am a retired engineer, so I do have some math in my background, and I found the level just right.

Pedagogically, Mortenson's presentation is easy for a reader to follow. Accompanied by generous numbers of diagrams. He gives understandable interpretations of how matrices are used to represent different types of transformations. The underlying geometrical rationale is clear. En route, the reader is gently introduced to group theory. For finite groups. A way to bind geometry and symmetry. Interestingly, the notation he uses for the symmetries and groups is Schonflies. In 1982, this was already being phased out by crystallographers, in favour of International notation. But maybe mathematicians prefer the older style. There is also a quick discussion of tensors. Giving rise to contra and covariant vectors. And the metric tensor is introduced as a key idea. All this is a jumping off point for physicists studying General Relativity, though it is not actually mentioned by name.

[Download to continue reading...](#)

Geometric Transformations for 3D Modeling From Antiquities to Heritage: Transformations of Cultural Memory (Time and the World: Interdisciplinary Studies in Cultural Transformations) The Model's Bible & Global Modeling Agency Contact List - An Insider's Guide on How to Break into the Fashion Modeling Industry Modeling Agency Tips: Get Listed with Fashion Modeling Agencies and Find Your Dream Job 3ds Max Modeling for Games: Insider's Guide to Game Character, Vehicle, and Environment Modeling: Volume I Atmospheric and Space Flight Dynamics: Modeling and Simulation with MATLAB® and Simulink® (Modeling and Simulation in Science, Engineering and Technology) Introduction to the Numerical Modeling of Groundwater and Geothermal Systems: Fundamentals of Mass, Energy and Solute Transport in Poroelastic Rocks (Multiphysics Modeling) Modeling Dynamic Biological Systems (Modeling Dynamic Systems) Dynamic Modeling in the Health Sciences (Modeling Dynamic Systems) 3ds Max Modeling for Games: Insider's Guide to Game Character, Vehicle, and Environment Modeling: 1 Religious Transformations in the Early

Modern World: A Brief History with Documents (Bedford Series in History & Culture) About Face:
Amazing Transformations Using the Secrets of the Top Celebrity Makeup Artist World Music:
Traditions and Transformations (B&B Music) Looseleaf for World Music: Traditions and
Transformations World Music: Traditions and Transformations CD Set for World Music: Traditions
and Transformations Toward Sustainable Communities: Transition and Transformations in
Environmental Policy (American and Comparative Environmental Policy) Transforming Vocation
(Transformations Series) Transforming Evangelism (Transformations Series) Transforming
Preaching: Transformations series

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)