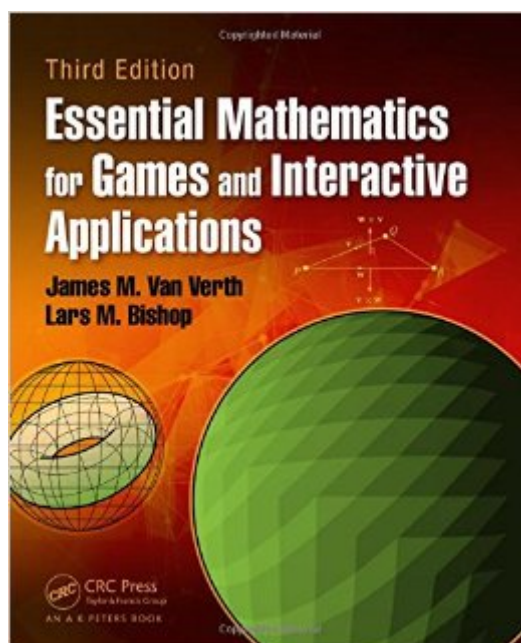# Essential Mathematics For Games And Interactive Applications, Third Edition

Synopsis

Expert Guidance on the Math Needed for 3D Game ProgrammingDeveloped from the authorsâ ™ popular Game Developers Conference (GDC) tutorial, Essential Mathematics for Games and Interactive Applications, Third Edition illustrates the importance of mathematics in 3D programming. It shows you how to properly animate, simulate, and render scenes and discusses the mathematics behind the processes. New to the Third EditionCompletely revised to fix errors and make the content flow better, this third edition reflects the increased use of shader graphics pipelines, such as in DirectX 11, OpenGL ES (GLES), and the OpenGL Core Profile. It also updates the material on real-time graphics with coverage of more realistic materials and lighting. The Foundation for Successful 3D ProgrammingThe book covers the low-level mathematical and geometric representations and algorithms that are the core of any game engine. It also explores all the stages of the rendering pipeline. The authors explain how to represent, transform, view, and animate geometry. They then focus on visual matters, specifically the representation, computation, and use of color. They also address randomness, intersecting geometric entities, and physical simulation. An Introduction to Creating Real and Active Virtual WorldsThis updated book provides you with a conceptual understanding of the mathematics needed to create 3D games as well as a practical understanding of how these mathematical bases actually apply to games and graphics. It not only includes the theoretical mathematical background but also incorporates many examples of how the concepts are used to affect how a game looks and plays. Web ResourceA supplementary website contains a collection of source code, supporting libraries, and interactive demonstrations that illustrate the concepts and enable you to experiment with animation and simulation applications. The site also includes slides and notes from the authorsâ ™ GDC tutorials.

Book Information

Hardcover: 624 pages

Publisher: A K Peters/CRC Press; 3 edition (August 26, 2015)

Language: English

ISBN-10: 1482250926

ISBN-13: 978-1482250923

Product Dimensions: 7.6 x 1.3 x 9.3 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: 4.8 out of 5 starsÂ Â See all reviewsÂ (4 customer reviews)

Best Sellers Rank: #182,266 in Books (See Top 100 in Books)   #41 inÂ Books > Science & Math >

Customer Reviews

It's just plain GOLD: Best Math Book Ever for Programming, making it the best reference on the domain.All the math you'll ever need in 3D and Games Programming will be explained clearly, along with the best solution of the domains, with pro/cons each time.And Associated web site full of very very interesting links, along with demo/source code : http://www.essentialmath.com/I just refer to it any junior programmer lost as the "math compass" when I see them googling all day long trying to figure the maths behind 3D/game programming. Sometimes they get correct result, often not understanding what they copy/past, but it's rarely the best/good anwser each time, with all reference and explanations... I really wish it to be mandatory to read that when they were students...

This book is truly amazing, it covers everything in such detail that you can write your own graphics api by the end of it , seriously one of the best programming books ever written!!!!! Such precision such formality such details , there is only one thing that is missing and that is exercises to test your knowledge at the end of each chapter

Radical

So glad this has a kindle version. So many tech books don't have one. You'd think the most likely people to by e-books would be the same people that made the tech

Download to continue reading...

Hacking: Tapping into the Matrix Tips, Secrets, steps, hints, and hidden traps to hacking: Hacker, Computer, Programming, Security & Encryption Jack and the Hungry Giant Eat Right With Myplate Managing Your Family's High-Tech Habits: (From Video-Games to the Dark Side of the Web) Information Architecture: For the Web and Beyond Keep Your Love On: Connection Communication And Boundaries The Smarter Screen: Surprising Ways to Influence and Improve Online Behavior The New Rules for Love, Sex, and Dating A Lifelong Love: How to Have Lasting Intimacy, Friendship, and Purpose in Your Marriage Beautiful Data: A History of Vision and Reason since 1945 (Experimental Futures) Garden City: Work, Rest, and the Art of Being Human. Fear and Faith: Finding the Peace Your Heart Craves To Heaven and Back: The Journey of a Roman Catholic

Priest A Doctor's Tools (Community Helpers and Their Tools) Why Suffering?: Finding Meaning and Comfort When Life Doesn't Make Sense Rainbow Warriors and the Golden Bow: Yoga Adventure for Children (Rainbow Warriors Yoga Series) Touching Heaven: A Cardiologist's Encounters with Death and Living Proof of an Afterlife Machines of Loving Grace: The Quest for Common Ground Between Humans and Robots Control Systems Engineering, 7th Edition Husband After God: Drawing Closer To God And Your Wife Sex is a Funny Word: A Book about Bodies, Feelings, and YOU