

1. Record Nr.	UNINA9910337569803321
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Titolo	Calculus for Computer Graphics / / by John Vince
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-11376-0
Edizione	[2nd ed. 2019.]
Descrizione fisica	1 online resource (XVII, 303 p. 179 illus., 178 illus. in color.)
Disciplina	006.60151
Soggetti	Computer graphics Computer science—Mathematics Computer mathematics Computer Graphics Mathematical Applications in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Functions -- Limits and Derivatives -- Derivatives and Antiderivatives -- Higher Derivatives -- Partial Derivatives -- Integral Calculus -- Area Under a Graph -- Arc Length and Parameterisation of Curves -- Surface Area -- Volume -- Vector-Valued Functions -- Tangent and Normal Vectors -- Continuity -- Curvature -- Conclusion.
Sommario/riassunto	Students studying different branches of computer graphics have to be familiar with geometry, matrices, vectors, rotation transforms, quaternions, curves and surfaces and as computer graphics software becomes increasingly sophisticated, calculus is also being used to resolve its associated problems. In this 2nd edition, the author extends the scope of the original book to include applications of calculus in the areas of arc-length parameterisation of curves, geometric continuity, tangent and normal vectors, and curvature. The author draws upon his experience in teaching mathematics to undergraduates to make calculus appear no more challenging than any other branch of mathematics. He introduces the subject by examining how functions depend upon their independent variables, and then derives the appropriate mathematical underpinning and definitions. This gives rise

to a function's derivative and its antiderivative, or integral. Using the idea of limits, the reader is introduced to derivatives and integrals of many common functions. Other chapters address higher-order derivatives, partial derivatives, Jacobians, vector-based functions, single, double and triple integrals, with numerous worked examples, and over a hundred and seventy colour illustrations. This book complements the author's other books on mathematics for computer graphics, and assumes that the reader is familiar with everyday algebra, trigonometry, vectors and determinants. After studying this book, the reader should understand calculus and its application within the world of computer graphics, games and animation.
