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 1.8 Differential geometry -- 1.9 Dirac-delta and Heaviside step
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Sommario/riassunto

This book has been written with two purposes, as a textbook for engineering courses and as a reference book for engineers and scientists. The book is an outcome of several lecture courses. These include lectures given to graduate students at the Asian Institute of Technology for several years, a course on elasticity for University of Tokyo graduate students in the spring of 1979, and courses on elasticity, viscoelasticity and finite deformation at the National University of Singapore from May to November 1985. In preparing this book, I kept three objectives in mind: first, to provide sound fundamental knowledge of solid mechanics in the simplest language possible; second, to introduce effective analytical and numerical solution methods; and third, to impress on readers that the subject is beautiful, and is accessible to those with only a standard mathematical background. In order to meet those objectives, the first chapter of the book is a review of mathematical foundations intended for anyone whose background is an elementary knowledge of differential calculus, scalars and vectors, and Newton's laws of motion. Cartesian tensors are introduced carefully. From then on, only Cartesian tensors in the indicial notation, with subscript as indices, are used to derive and represent all theories.
