

Tensor Analysis

Tensor calculus is a prerequisite for many tasks in physics and engineering. This book introduces the symbolic and the index notation side by side and offers easy access to techniques in the field by focusing on algorithms in index notation. It explains the required algebraic tools and contains numerous exercises with answers, making it suitable for self study for students and researchers in areas such as solid mechanics, fluid mechanics, and electrodynamics.

Contents

Algebraic Tools

Tensor Analysis in Symbolic Notation and in Cartesian Coordinates

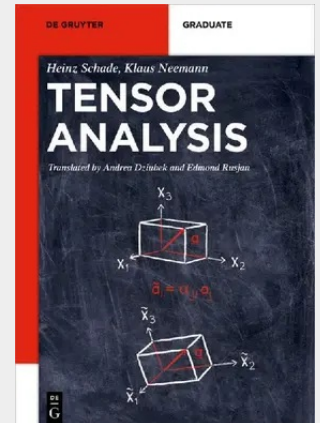
Algebra of Second Order Tensors

Tensor Analysis in Curvilinear Coordinates

Representation of Tensor Functions

Appendices: Solutions to the Problems; Cylindrical Coordinates and Spherical Coordinates

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