# 张量计算与应用TENSOR CALCULUS WITH APPLICATIONS
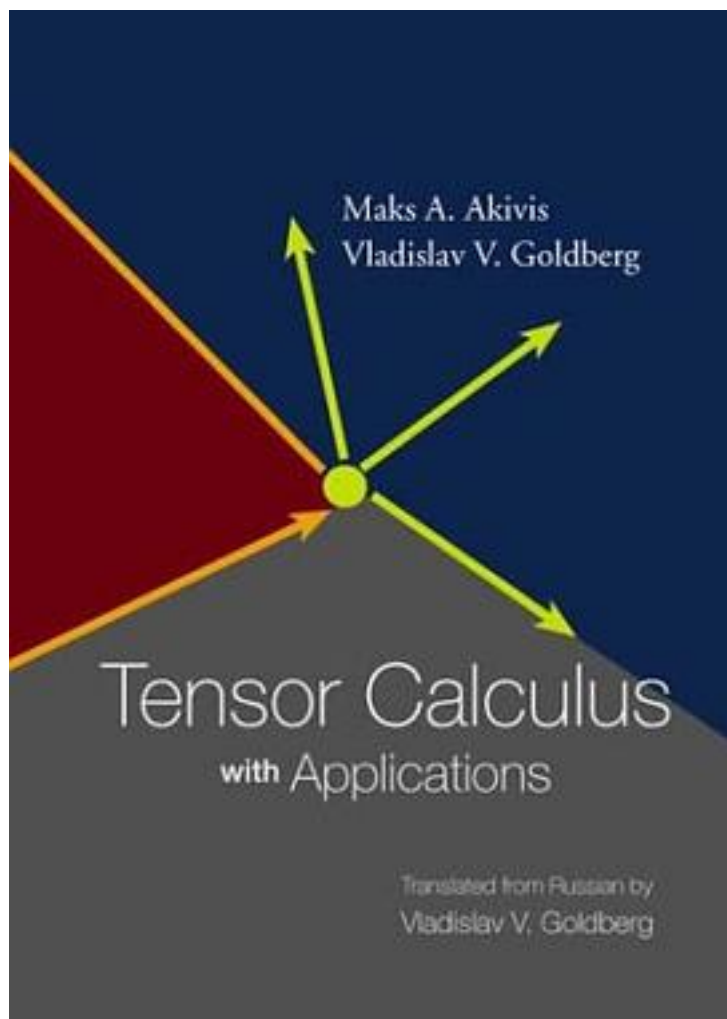
张量计算与应用TENSOR CALCULUS WITH APPLICATIONS_下载链接1_

著者:Gotdberg, Vladislav V.

出版者:

出版时间:2003-12

装帧:

isbn:9789812385055

This textbook presents the foundations of tensor calculus and the elements of tensor analysis, in addition to considering numerous applications of tensors to geometry, mechanics and physics. While developing tensor calculus, the authors emphasize its relationship with linear algebra. Necessary notions and theorems of linear algebra are introduced and proved in connection with the construction of the apparatus of tensor calculus; prior knowledge is not assumed. For simplicity and to enable the reader to visualize concepts more clearly, all exposition is conducted in three-dimensional space. The principal feature of the book is that the authors use mainly orthogonal tensors, since such tensors are important in applications to physics and engineering. All notions introduced in the book, and also the obtained results, are illustrated with numerous examples discussed in the text. Each section of the book presents problems (a total over 300 problems are given). Examples and problems are intended to illustrate, reinforce textbook presents the foundations of tensor calculus and the elements of tensor analysis, in addition to considering numerous applications of tensors to geometry, mechanics and physics. While developing tensor calculus, the authors emphasize its relationship with linear algebra. Necessary notions and theorems of linear algebra are introduced and proved in connection with the construction of the apparatus of tensor calculus; prior knowledge is not assumed. For simplicity and to enable the reader to visualize concepts more clearly, all exposition is conducted in three-dimensional space. The principal feature of the book is that the authors use mainly orthogonal tensors, sincesuch tensors are important in applications to physics and engineering. All notions introduced in the book, and also the obtained results, are illustrated with numerous examples discussed in the text. Each section of the book presents problems (a total over 300 problems are given). Examples and problems are intended to illustrate, reinforce and deepen the presented material. There are answers to most of (he problems, as well as hints and solutions to selected problems at the end of the book.

作者介绍:

目录:

张量计算与应用TENSOR CALCULUS WITH APPLICATIONS_下载链接1_

标签

评论

----------------------------

张量计算与应用TENSOR CALCULUS WITH APPLICATIONS_下载链接1_

# 书评

------------------------------