



## BOOK REVIEW

*Physical Components of Tensors*, by Wolf Altman and Antonio Marmo De Oliveira, CRC Press - Taylor & Francis Group, Boca Raton 2015, XXII + 209 pp., ISBN: 978-1-4822-6383-1.

In the brand new book *Physical Components of Tensors* by the prominent Brazilian scientists Wolf Altman and Antonio Marmo de Oliveira appearing in the CRC Series in *Applied and Computational Mechanics* the reader can find a concise but comprehensive account of the fundamentals of tensor calculus in holonomic and anholonomic coordinate systems and a number of its applications in continuum and structural mechanics.

Nowadays, it is hardly possible to imagine a modern description of the mechanical properties, statics and dynamics of solids and structures without using vector and tensor relations and tensor calculus. As pointed out by the authors “Anyone who lacks the knowledge of this mathematical tool is at a disadvantage in what concerns working effectively in this as well as several other fields of pure and applied mathematics”.

However, this book is not just another, although excellent, textbook on classical tensor calculus. Definitely, it provides an exhaustive presentation of the theory of physical and nonholonomic components of tensors with application to the continuum mechanics and shell theory. In fact, this is what makes Altman and de Oliveira’s book unique. Doubtless, each graduate student, professor or researcher working in the field of mechanical or civil engineering, theoretical or experimental physics or applied mathematics would find it useful.

The book is organized in five chapters. The first three chapters, which may be thought of as a self-contained introductory part of the book, namely, Chapter 1. *Finite-Dimensional Vector Spaces*, Chapter 2. *Vector and Tensor Algebras* and Chapter 3. *Tensor Calculus* introduce the mathematical background of the theory developed in Chapter 4. *Physical and Anholonomic Components of Tensors* and applied in Chapter 5. *Deformation of Continuous Media*. Here, it should be noted