

Rezensionen / Reviews

Reddy, J. N.:

An Introduction to Continuum Mechanics

Cambridge University Press, 2008

354 pp., 59,00 €

ISBN-10: 0521870445

ISBN-13: 978-0521870443

The book is meant as a textbook for undergraduate and beginning graduate students. So it starts right from the basics with a brief introduction to vectors and tensor. It uses a modern notation and is illustrated by clear figures. A large number of interesting examples helps to understand the theory. The list of references with almost 50 titles concentrates on additional literature. The content includes linear elasticity, fluid mechanics and heat transfer, and linear viscoelasticity. Also a short example of conductive and dielectric materials is given. However, it is surprising that plasticity is not addressed at all.

The chapters on kinematics and stress analysis include non-linear concepts. The chapters on elasticity and viscoelasticity, however, are mainly dedicated to the linear theories named after Hooke and Newton.

All in all, this textbook is recommendable for students and self-studies at this level, but it does not contribute much to problems on a research level.

A. Bertram