



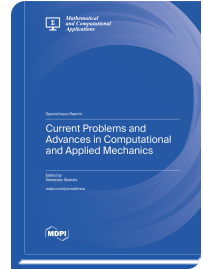
Special Issue Reprint

Current Problems and Advances in Computational and Applied Mechanics

www.mdpi.com/books/reprint/9247

Edited by
Sebastian Skatulla

ISBN 978-3-7258-1061-1 (Hardback)
ISBN 978-3-7258-1062-8 (PDF)



Advances in computational solid and fluid mechanics have led to significant developments in a large variety of fields, including engineering, physics, and medicine. Computational mechanics offers design flexibility, sophistication, and experimentation, enabling engineers to analyse complex design problems and optimisation solutions efficiently at reduced costs. This Special Edition illustrates the latest advances in computational solid mechanics, fluid mechanics, and coupled problems, and their application to practical engineering problems. This volume contains the scientific contributions presented at the 5th African Conference on Computational Mechanics (AfriComp5) which took place in Cape Town, South Africa, 2–4 November 2022. The articles comprise topics from the wide range of applied mechanics and mathematics including structural mechanics; fluid mechanics; fluid–structure interaction; biomechanics; damage and fracture mechanics; multi-scale mechanics; multi-physics; advanced numerical methods; optimisation and design; and big data and machine learning. Only original contributions were considered for inclusion. All articles were subjected to a full process of double-blind peer review. The review of manuscripts was undertaken by members of the Scientific Advisory Board and other identified leading experts, acting independently on one or more assigned manuscripts. The reader would find this Special to be a useful reference of the state of the art in a variety of areas spanning theoretical and applied mechanics.

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.