





Special Issue Reprint

# **Computational Methods in Structural Engineering**

www.mdpi.com/books/reprint/11652

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ISBN 978-3-7258-5437-0 (Hardback) ISBN 978-3-7258-5438-7 (PDF)



This Reprint brings together nine contributions that showcase the latest advances in computational methods applied to structural engineering. It includes an introductory editorial and eight original research articles covering topics such as nonlinear finite element modeling under extreme loads, advanced plate and composite analysis, explainable machine learning for material characterization, predictive models for curved beams, stochastic approaches for uncertainty quantification, and data-driven signal processing for structural health monitoring. Collectively, these works demonstrate how computational tools, from high-precision numerical schemes to artificial intelligence, are shaping the analysis, design, and optimization of modern structures. The Reprint highlights both the opportunities and the challenges of integrating advanced computation into engineering practice, providing researchers and professionals with insights into methods that enhance safety, efficiency, and innovation in the built environment.





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