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Marti, Peter



Theory of Structures

Fundamentals, Framed Structures, Plates and Shells

This book is a comprehensive manual for analysing framed structures as well as plates and shells using elastic and plastic theory. It forms a work of reference for a multitude of problems encountered in everyday structural engineering.

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January 2013
Ca. 750 pages, ca. 600 figures,
ca. 30 tables, Hardcover.

ISBN: 978-3-433-02991-6
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* Prices incl. taxes and shipping costs.

This book provides the reader with a consistent approach to theory of structures on the basis of applied mechanics. It covers framed structures as well as plates and shells using elastic and plastic theory, and emphasizes the historical background and the relationship to practical engineering activities. This is the first comprehensive treatment of the school of structures that has evolved at the Swiss Federal Institute of Technology (ETH) in Zurich over the last 50 years.

The many worked examples and exercises make this a textbook ideal for in-depth studies. Each chapter concludes with a summary that highlights the most important aspects in concise form. Specialist terms are defined in an appendix.

There is an extensive index befitting such a work of reference. The structure of the content and highlighting in the text make the book easy to use. The notation, properties of materials and geometrical properties of sections plus brief outlines of matrix algebra, tensor calculus and calculus of variations can be found in appendices.

This publication should be regarded as a **key work of reference for students, teaching staff and practising engineers**. Its purpose is to show readers how to model and handle structures appropriately, to support them in designing and checking the structures within their sphere of responsibility.

About the author:

Prof. Dr. sc. techn. Peter Marti has been professor for theory of structures and structural design at the Swiss Federal Institute of Technology in Zurich since 1990, lecturing in theory of structures and structural concrete. Peter Marti has served as chairman on various technical commissions, e.g. ACI-ASCE Joint Committee 445 "Shear and Torsion" and fib Commission 4 "Modelling of Structural Behaviour and Design". He was also president of Swiss standards commission SIA 162 "Concrete structures", project manager for "Swisscodes" and president of the Society for the Art of Civil Engineering. In his role as consulting engineer, reviewer and jury member for competitions, he is responsible for many challenging building, bridge and tunnel projects.

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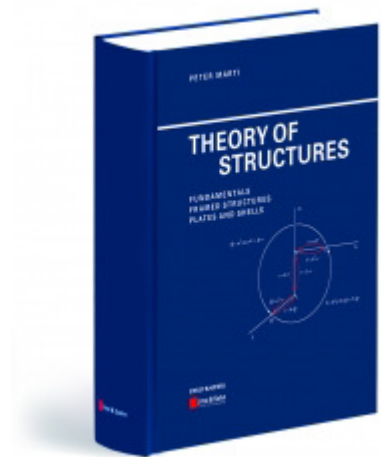


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