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Edizione	[1st ed.]
Descrizione fisica	1 online resource (xii, 134 pages) : digital, PDF file(s)
Disciplina	624.1/7
Soggetti	Structural analysis (Engineering) - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Introduction -- Structural assumptions -- Structural equations -- Strength -- Trussed frameworks -- Virtual work -- Structures in bending -- Plastic theory -- Masonry -- The structural state -- Stiffness -- The truss -- Bending stiffness -- Matrix formulation -- Elastic analysis -- Elastic properties: Reciprocal theorems; influence lines; indirect model tests; energy methods -- Methods of calculation: Slope-deflexion equations; moment distribution -- Stability -- Elastic buckling -- Practical behaviour -- Other buckling phenomena -- Appendix A: Virtual work -- Structures in bending -- Trusses -- Appendix B: The plastic theorems -- Appendix C: Buckling calculations.
Sommario/riassunto	This text introduces the basic equations of the theory of structures. Conventional presentations of these equations follow the ideas of elastic analysis, introduced nearly two hundred years ago. The book is written against the background of advances made in structural theory

during the last fifty years, notably by the introduction of so-called plastic theory. The emphasis throughout is on the derivation and application of the structural equations, rather than on details of their solution (nowadays best done by computer), and the numerical examples are deliberately kept simple.
