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Sommario/riassunto	"The aim of this book is to deliver a unified presentation of the theory and techniques with the emphases on the applications of the moment information of random variables for structural reliability. The contents of the book will be useful for post-graduate students, researchers and engineers in the field of civil, mechanical, aerospace and aeronautical and ship engineering, and so forth. Structural reliability deals with the safety evaluation and risk assessment of engineering structures. The structures include the buildings, bridges, aircrafts, etc., refer to those bodies or systems consisting of some materials in a certain way and having the function of bearing loads and actions. One of the principal aims of structural design is the assurance of structural performance within the constraint of economy. The reliability of a structure can therefore be defined as its ability to fulfill its design purpose for a specified reference period. Since the deterministic approach failed to provide a quantitative measure of safety, probabilistic measure of safety, i.e., the structural reliability theory, has to be used. The use of the first few moments of random variables and the performance function, in original form or in its first/second order approximation,

form the basic content of the book. The methods, being easy to be implemented, can avoid the shortcomings of FORM, such as the design points, derivative-based iterative computation, and thus are expected to be conveniently applied to structural reliability analysis and reliability based design"--