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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction -- Integral Volterra Equations -- Phenomenological Time Invariant Creep Models -- Phenomenological Time Variant Nonlinear Creep Models -- Transient Engineering Creep of Materials Under Various Fire Conditions -- Anisotropic Materials and Composite Structures -- Probabilistic Modeling of Creep and Stress-Strain Diagram -- Probability-based Engineering Creep and Design Fire Exposure -- Fire Severity and Structural Creep Analysis/Design.
Sommario/riassunto	This volume on structural fire resistance is for aerospace, structural, and fire prevention engineers; architects, and educators. It bridges the gap between prescriptive- and performance-based methods and simplifies very complex and comprehensive computer analyses to the point that the structural fire resistance and high temperature creep

deformations will have a simple, approximate analytical expression that can be used in structural analysis and design. The book emphasizes methods of the theory of engineering creep (stress-strain diagrams) and mathematical operations quite distinct from those of solid mechanics absent high-temperature creep deformations, in particular the classical theory of elasticity and structural engineering. Dr. Razdolsky's previous books focused on methods of computing the ultimate structural design load to the different fire scenarios. The current work is devoted to the computing of the estimated ultimate resistance of the structure taking into account the effect of high temperature creep deformations. An essential resource for aerospace structural engineers who wish to improve their understanding of structure exposed to flare up temperatures and severe fires, the book also serves as a textbook for introductory courses in fire safety in civil or structural engineering programs, vital reading for the PhD students in aerospace fire protection and structural engineering, and a case study of a number of high-profile fires (the World Trade Center, Broadgate Phase 8, One Meridian Plaza; Mandarin Towers). Probability Based High Temperature Engineering: Creep and Structural Fire Resistance successfully bridges the information gap between aerospace, structural, and engineers; building inspectors, architects, and code officials.