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Nota di contenuto	Cover; table of contents; Foreword; Author's Preface; About the Author; 1 Introduction; 2 Asymptotic Analysis of Size Effect; 3 Randomness and Disorder; 4 Energetic Scaling for Sea Ice and Concrete Structures; 5 Energetic Scaling of Compression Fracture and Further Applications to Concrete, Rock and Composites; 6 Scaling via J-integral, With Application to Kink Bands in Fiber Composites; 7 Time Dependance, Repeated Loads and Energy Absorption Capacity; 8 Computational Approaches to Quasibrittle Fracture and Its Scaling 9 New Asymptotic Scaling Analysis of Cohesive Crack Model and Smeared-Tip Method10 Size Effect at Continuum Limit on Approach to Atomic Lattice Scale; 11 Future Perspectives; Addendum; Bibliography; index; Subject Index; Reference Citation Index
Sommario/riassunto	This book is concerned with a leading-edge topic of great interest and importance, exemplifying the relationship between experimental research, material modeling, structural analysis and design. It focuses on the effect of structure size on structural strength and failure behaviour. Bazant's theory has found wide application to all quasibrittle materials, including rocks, ice, modern fiber composites and tough

ceramics. The topic of energetic scaling, considered controversial until recently, is finally getting the attention it deserves, mainly as a result of Bazant's pioneering work. I