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Sommario/riassunto	This book presents insights from the IUTAM Symposium on Nonlinear Dynamics for Design of Mechanical Systems Across Different Length/Time Scales. It covers a diverse array of topics, including applications of parametric amplification and self-excitation, as well as the design and analysis of devices and systems that harness geometric and material nonlinearities. The book features chapters on nonlinear energy transfer, eigenfrequency detection through subharmonic and

superharmonic resonances, and the innovative use of nonlinear mode localization. The authors explore dynamic stabilization under high-frequency excitation, the utilization of multimode interactions and nonlinear normal modes, and the application of nonlinear resonance and bifurcation in creating ultrasensitive sensors and high-performance actuators. This book provides a comprehensive record of the symposium's discussions, representing a collective effort to expand our understanding of nonlinear phenomena and its potential to reshape the landscape of mechanical system design.
