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Nota di contenuto	Application of Steel Shear Walls toward more Resilient Structures -- Resilience of the Built Environment: A Methodology to Estimate the Downtime of Building Structures Using Fuzzy Logic -- Resilient Design of Buildings with Hysteretic Energy Dissipation Devices as Seismic Fuses -- Improvement of Building Resilience by Viscous Dampers -- Earthquake Risk Management Systems and their Applications for Building Seismic-Resilient Communities -- Making Homes More Resilient to Flooding: A New Hybrid Approach -- Resilience-Based Design for Blast Risk Mitigation: Learning from Natural Disasters -- Seismic Mitigation Framework for Non-Engineered Masonry Buildings in Developing Countries: Application to Malawi in The East African Rift -- Double and Triple Impulses for Capturing Critical Elastic-Plastic Response Properties and Robustness of Building Structures under Near-Fault Ground Motions -- Multi-Objective Performance-Based Design Optimization of a Controlled Rocking Steel Braced Frame System -- Seismic Performance Assessment of Reinforced Concrete Columns in

## Regions of Low to Moderate Seismicity.

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### Sommario/riassunto

This book discusses resilience in terms of structures' and infrastructures' responses to extreme loading conditions. These include static and dynamic loads such as those generated by blasts, terrorist attacks, seismic events, impact loadings, progressive collapse, floods and wind. In the last decade, the concept of resilience and resilient-based structures has increasingly gained in interest among engineers and scientists. Resilience describes a given structure's ability to withstand sudden shocks. In other words, it can be measured by the magnitude of shock that a system can tolerate. This book offers a valuable resource for the development of new engineering practices, codes and regulations, public policy, and investigation reports on resilience, and provides broad and integrated coverage of the effects of dynamic loadings, and of the modeling techniques used to compute the structural response to these loadings.

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