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Titolo	Why do buildings collapse in earthquakes? : building for safety in seismic areas // Robin Spence, Emily So
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ISBN	1-119-61945-9 1-119-61947-5 1-119-61946-7
Descrizione fisica	1 online resource (ix, 288 pages) : illustrations (chiefly color), color maps
Disciplina	693.8/52
Soggetti	Buildings - Earthquake effects Earthquake resistant design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction : why this book -- How do buildings behave in earthquakes? -- How are buildings constructed in earthquake zones? -- What happens in an earthquake? -- How do different forms of construction behave in earthquakes? -- How is the population affected? -- How can buildings be improved? -- Successes and failures in earthquakes protection : a country comparison -- The way forward : what part can different actors play?
Sommario/riassunto	"With today's technical understanding, building collapse in earthquakes should be a thing of the past. Engineers know how to build safely in earthquake prone areas, and modern building techniques have been through extensive theoretical analyses, laboratory testing and reviews over years of research and development. However, the construction process is a complicated one, involving many players and stages, and with increasing populations, ageing buildings and other social and political constraints, the reality is not so simple. When a large earthquake occurs, many buildings continue to collapse, and many of their occupants are killed or injured."-- Learn from the personal experience and insights of leading earthquake

engineering specialists as they examine the lessons from disasters of the last 30 years and propose a path to earthquake safety worldwide

Why Do Buildings Collapse in Earthquakes?: Building for Safety in Seismic Areas delivers an insightful and comprehensive analysis of the key lessons taught by building failures during earthquakes around the world. The book uses empirical evidence to describe the successes of earthquake engineering and disaster preparedness, as well as the failures that may have had tragic consequences. Readers will learn what makes buildings in earthquake zones vulnerable, what can be done to design, build and maintain those buildings to reduce or eliminate that vulnerability, and what can be done to protect building occupants. Those who are responsible for the lives and safety of building occupants and visitors - architects, designers, engineers, and building owners or managers - will learn how to provide adequate safety in earthquake zones. The text offers useful and accessible answers to anyone interested in natural disasters generally and those who have specific concerns about the impact of earthquakes on the built environment. Readers will benefit from the inclusion of:

- A thorough introduction to how buildings have behaved in earthquakes, including a description of the world's most lethal earthquakes and the fatality trend over time
- An exploration of how buildings are constructed around the world, including considerations of the impact of climate and seismicity on home design
- A discussion of what happens during an earthquake, including the types and levels of ground motion, landslides, tsunamis, and sequential effects, and how different types of buildings tend to behave in response to those phenomena
- What different stakeholders can do to improve the earthquake safety of their buildings

The owners and managers of buildings in earthquake zones and those responsible for the safety of people who occupy or visit them will find **Why Do Buildings Collapse in Earthquakes? Building for Safety in Seismic Areas** essential reading, as will all architects, designers and engineers who design or refurbish buildings in earthquake zones.
