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| Nota di contenuto | 1 Introduction -- 2 General Concepts and PSHA Background -- 3 Seismic Source Characterization -- 4 Rock Motion Characterization -- 5 Site Response Characterization -- 6 Seismic Hazard Computation -- 7 Interfaces Between Sub Projects -- 8 Probabilistic Seismic Testing and Updating of Seismic Hazard Results -- 9 Summary and Way Forward -- 10 References -- 11 Annex 1: List of Committee Members -- 12 Annex 2: List of Publications. |
| Sommario/riassunto | This book presents a summary of the important outcomes of the SIGMA project related to all aspects of Probabilistic Seismic Hazard Assessment: source characterization, rock motion characterization, site response characterization, and hazard calculations, with for all of them emphasis on the treatment of uncertainties. In recent years, attempts have been made to identify and quantify uncertainties in seismic hazard |

estimations for regions with moderate seismicity. These uncertainties, for which no estimation standards exist, create major difficulties and can lead to different interpretations and divergent opinions among experts. To address this matter, an international research project was launched in January 2011, by an industrial consortium composed of French and Italian organizations. This program, named SIGMA (Seismic Ground Motion Assessment) lasted for five years and involved a large number of international institutions. This book is intended for instructors running courses on engineering seismology, graduate students in the same field and practicing engineers involved in Probabilistic Seismic Hazard Analyses.
