

1. Record Nr.	UNINA9910254004803321
Autore	Pecker Alain
Titolo	An Overview of the SIGMA Research Project : A European Approach to Seismic Hazard Analysis / / by Alain Pecker, Ezio Faccioli, Aybars Gurpinar, Christophe Martin, Philippe Renault
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-58154-6
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XI, 172 p. 45 illus., 38 illus. in color.)
Collana	Geotechnical, Geological and Earthquake Engineering, , 1573-6059 ; ; 42
Disciplina	363.3495
Soggetti	Environmental sciences Natural disasters Geophysics Computer science - Mathematics Environmental Science and Engineering Natural Hazards Geophysics/Geodesy Computational Science and Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
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.
