

1. Record Nr.	UNINA9911004850303321
Titolo	Landslides : types, mechanisms, and modeling // edited by John J. Clague, Douglas Stead
Pubbl/distr/stampa	New York, : Cambridge University Press, 2012
ISBN	1-139-56406-4 1-139-88723-8 1-62870-284-2 0-511-74036-0 1-283-61044-2 1-139-55048-9 9786613922892 1-139-54923-5 1-139-55544-8 1-139-55419-0 1-139-55173-6
Descrizione fisica	1 online resource (xiii, 420 pages) : digital, PDF file(s)
Classificazione	SCI030000
Altri autori (Persone)	ClagueJ. J <1946-> (John Joseph) SteadD (Doug)
Disciplina	551.3/07
Soggetti	Landslide hazard analysis Slopes (Soil mechanics) - Stability Landslides - Mathematical models Slopes (Soil mechanics) - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface / John J. Clague and Doug Stead -- ; 1. Landslide hazard and risk / John J. Clague and Nicholas J. Roberts -- ; 2. Landslides in the earth system / Oliver Korup -- ; 3. Earthquake ground motion and patterns of seismically induced landsliding / Niels Hovius and Patrick Meunier -- ; 4. Landslides at stratovolcanoes initiated by volcanic unrest / Christopher F. Waythomas -- ; 5. Mobility of long-runout rock avalanches / Tim Davies and Mauri McSaveney -- ; 6. Rapid rock-slope failures / Reginald L. Hermanns and Oddvar Longva -- ; 7. Risk

assessment for debris flows / Matthias Jakob and Kris Holm -- ; 8. Landslides in quick clay / J. Kenneth Torrance -- ; 9. Controls on the distribution of major types of submarine landslides / David J.W. Piper, David C. Mosher, and D. Calvin Campbell -- ; 10. Tsunami hazard assessment related to slope failures in coastal waters / Brian D. Bornhold and Richard E. Thomson -- ; 11. Physical impacts of climate change on landslide occurrence and related adaptation / Christian Huggel, Nikolay Khabarov, Oliver Korup, and Michael Obersteiner -- ; 12. Landslides and geological environments / Robin Fell, David Stapledon and Patrick MacGregor -- ; 13. Numerical modeling of rock-slope instability / Douglas Stead and John Coggan -- ; 14. Remote sensing techniques and landslides / David Petley -- ; 15. Engineering geomorphology of landslides / James S. Griffiths and Malcolm Whitworth -- ; 16. Developments in landslide runout prediction / Scott McDougall, Mika McKinnon, and Oldrich Hungr -- ; 17. Models of the triggering of landslides during earthquakes / Randall W. Jibson -- ; 18. Slow rock-slope deformation / Federico Agliardi, Giovanni B. Crosta, and Paolo Frattini -- ; 19. Landslide monitoring: the role of investigative monitoring to improve understanding and early warning of failure / Erik Eberhardt -- ; 20. Groundwater in slopes / Luciano Picarelli, Serge Leroueil, Lucio Olivares, Luca Pagano, Paolo Tommasi, and Gianfranco Urciuoli -- ; 21. Soil slope stabilization / Edward N. Bromhead, Seyyedmahdi Hosseini, and Nobuyuki Torii -- ; 22. Rockfall characterization and modeling / Paolo Frattini, Giovanni B. Crosta, and Federico Agliardi -- ; 23. The 2006 Eiger rockslide, European Alps / Michel Jaboyedoff, Marc-Henri Derron, Julien Jakubowski, Thierry Oppikofer, and Andrea Pedrazzini -- ; 24. Randa: kinematics and driving mechanisms of a large complex rockslide / Simon Loew, Valentin Gischi, Heike Willenberg, Andrea Alpiger, and Jeffrey R. Moore -- ; 25. Characterization and management of rockslide hazard at Turtle Mountain, Alberta, Canada / Corey R. Froese, Marie Charriere, Florian Humair, Michel Jaboyedoff, and Andrea Pedrazzini -- ; 26. The Aknes rockslide, Norway / Lars Harald Blikra -- ; 27. A seismometric approach for back-analysing an unusual rockfall in the Apennines of Italy / Gianluca Bianchi Fasanì, Carlo Esposito, Luca Lenti, Salvatore Martino, Massimo Pecci, and Gabriele Scarascia Mugnozza -- ; 28. Downie Slide, British Columbia, Canada / Katherine S. Kalenchuk, D. Jean Hutchinson, Mark Diederichs, and Dennis Moore -- ; 29. The 1963 Vaiont landslide, Italy / Monica Ghirotti -- ; 30. Hong Kong landslides / Stephen R. Hencher and Andrew W. Malone -- ; 31. Landslides induced by the Wenchuan earthquake / Mashiro Chigira, Gonghui Wang, and Xiyong Wu -- ; 32. Landslides on other planets / Marko H.K. Bulmer.

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## Sommario/riassunto

Landslides have geological causes but can be triggered by natural processes (rainfall, snowmelt, erosion and earthquakes) or by human actions such as agriculture and construction. Research aimed at better understanding slope stability and failure has accelerated in recent years, accompanied by basic field research and numerical modeling of slope failure processes, mechanisms of debris movement, and landslide causes and triggers. Written by 75 world-leading researchers and practitioners, this book provides a state-of-the-art summary of landslide science. It features both field geology and engineering approaches, as well as modeling of slope failure and run-out using a variety of numerical codes. It is illustrated with international case studies integrating geological, geotechnical and remote sensing studies and includes recent slope investigations in North America, Europe and Asia. This is an essential reference for researchers and graduate students in geomorphology, engineering geology, geotechnical

engineering and geophysics, as well as professionals in natural hazard analysis.

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