Record Nr. UNINA9910300143603321 Risk - A Multidisciplinary Introduction / / edited by Claudia Titolo Klüppelberg, Daniel Straub, Isabell M. Welpe Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2014 **ISBN** 3-319-04486-9 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (X, 476 p. 100 illus., 42 illus. in color.): online resource Disciplina 519.2 Soggetti **Probabilities Statistics** Quality control Reliability Industrial safety User interfaces (Computer systems) Climate change Natural disasters Probability Theory and Stochastic Processes Statistics for Life Sciences, Medicine, Health Sciences Quality Control, Reliability, Safety and Risk User Interfaces and Human Computer Interaction Climate Change **Natural Hazards** Lingua di pubblicazione Inglese Materiale a stampa **Formato** Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Part One. Risk in History and Science: Zachmann, K.: Risk in historical perspective: concepts, contexts, and conjunctions --Lütge, C., Schnebel, E., Westphal, N.: Risk management and business ethics: integrating the human factor -- Straub, D., Welpe, I.: Decision-

making under risk: a normative and behavioral perspective -- Mainzer, K.: The new role of mathematical modelling and its importance for society -- Part Two. Quantitative Risk Methodology: Biagini, F., Meyer-

Brandis, T. and Svindland, G.: The mathematical concept of risk --Fasen, V., Klüppelberg, C., Menzel, A.: Quantifying extreme event risk. Schön, C.-C. and Wimmer, V.: Statistical models for the prediction of genetic values -- Brechmann, E. and Czado, C.: Bayesian risk analysis -- Klüppelberg, C., Stelzer, R.: Dealing with dependent risks -- Bannör, K. and Scherer, M.: Model risk and uncertainty; illustrated with examples from Mathematical finance -- Part Three. Risk Treatment in Various Applications: Roosen, J.: Cost-benefit analysis -- Straub, D.: Engineering risk assessment -- Vogel-Heuser, B.: Integrated modeling of complex production automation systems to increase dependability -- Wiesche, M., Hörmann, S., Schermann, M., Krcmar, H.: Information technology risks: an interdisciplinary challenge -- Klinker, G.: Risks in developing novel user interfaces for Human-Computer interaction -- Ankerst, D., Seifert-Klauss, V., Kiechle, M.: Translational risk models -- Seifert-Klauss, V., Thümer, L., Protzer, U.: Risk reduction of cervical cancer through HPV screening and vaccination assumptions and reality.

## Sommario/riassunto

This is a unique book addressing the integration of risk methodology from various fields. It stimulates intellectual debate and communication across disciplines, promotes better risk management practices and contributes to the development of risk management methodologies. Book chapters explain fundamental risk models and measurement, and address risk and security issues from diverse areas such as finance and insurance, health sciences, life sciences, engineering and information science. Integrated Risk Sciences is an emerging field, that considers risks in different fields aiming at a common language, and at sharing and improving methods developed in different fields. Readers should have a Bachelor degree and at least one basic university course in statistics and probability. The main goal of the book is to provide basic knowledge on risk and security in a common language; the authors have taken particular care to ensure that each chapter can be understood by doctoral students and researchers across disciplines. Each chapter provides simple case studies and examples, open research questions and discussion points, and a selected bibliography inviting the reader to further studies.