1. Record Nr. UNINA9910585774503321

Autore	Young Carl S.
Titolo	Cybercomplexity : a macroscopic view of cybersecurity risk / / Carl S. Young
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2022] ©2022
ISBN	9783031069949 9783031069932
Descrizione fisica	1 online resource (183 pages)
Collana	Advanced Sciences and Technologies for Security Applications
Disciplina	658.477
Soggetti	Computer security Data protection
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Foreword -- Preface -- Acknowledgements -- Introduction -- Contents -- About the Author -- Part I Security Risk Fundamentals -- 1 Core Concepts -- 1.1 Introduction -- 1.2 IT Environments Versus Threat Scenarios -- 1.3 The Components of Risk -- 1.4 Risk Factors and Risk-Relevance -- 1.5 Residual Risk -- 1.6 Risk Assessment Universality -- 1.7 Risk Calibration and Variability -- 2 Representing Cybersecurity Risk -- 2.1 Introduction -- 2.2 Linearity and Non-linearity -- 2.3 Security Risk Models -- 2.4 Security Risk Categorization -- 3 Scale and Scaling Relations -- 3.1 Introduction -- 3.2 Cybersecurity Risk and Perspective -- 3.3 Risk-Relevant Time and Distance Scales -- 3.4 Power Laws and Scaling Relations -- 3.5 The Power of Scaling Relations -- 3.6 Authentication and Scale -- 4 IT Environment Dimensions and Risk Factors -- 4.1 Introduction -- 4.2 Information Management -- 4.3 Information Technology -- 4.4 Network Users -- Part II Stochastic Security Risk Management -- 5 Security Risk Management Statistics -- 5.1 Introduction -- 5.2 IT Environment States -- 5.3 Information Content and Message Source Uncertainty -- 6 Information Entropy -- 6.1 Introduction -- 6.2 Ergodicity -- 6.3 Introduction to Information Entropy -- 6.4 Applying Information Entropy -- 6.5 Information Entropy and Security Risk Management -- Part III Enterprise Cybersecurity Risk -- 7 Complexity