

1. Record Nr.	UNINA9911018911603321
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Titolo	Fragile networks : identifying vulnerabilities and synergies in an uncertain world / / Anna Nagurney, Qiang Qiang
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, c2009
ISBN	9786612237348 9781282237346 1282237349 9780470501139 0470501138 9780470501122 047050112X
Descrizione fisica	1 online resource (340 p.)
Altri autori (Persone)	QiangQiang <1974->
Disciplina	003/.72
Soggetti	Network analysis (Planning) System analysis
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	FRAGILE NETWORKS: Identifying Vulnerabilities and Synergies in an Uncertain World; CONTENTS; List of Figures; List of Tables; PART I NETWORK FUNDAMENTALS, EFFICIENCY MEASUREMENT, AND VULNERABILITY ANALYSIS; 1 Introduction and Overview; 2 Fundamental Methodologies, Network Models, and Algorithms; 2.1 Review of Variational Inequality Theory and its Relationships to Optimization; 2.2 Decentralized Decision-Making and User-Optimization; 2.2.1 The Network Equilibrium (U-O) Model with Fixed Demands; 2.2.2 Network Equilibrium (U-O) Models with Elastic Demands 2.3 Centralized Decision-Making and System-Optimization2.3.1 The System-Optimization (S-O) Models; 2.3.2 System-Optimality Conditions; 2.4 Algorithms; 2.4.1 Equilibration Algorithms; 2.4.2 The Projection Method; 2.4.3 The Modified Projection Method; 2.4.4 The Euler Method; 2.5 Sources and Notes; 3 Network Performance Measurement and Robustness Analysis; 3.1 Some Preliminaries and Network Centrality Measures; 3.2 A Unified Network Performance

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## Sommario/riassunto

A unified treatment of the vulnerabilities that exist in real-world network systems-with tools to identify synergies for mergers and acquisitions  
 Fragile Networks: Identifying Vulnerabilities and Synergies in an Uncertain World presents a comprehensive study of network systems and the roles these systems play in our everyday lives. This book successfully conceptualizes, defines, and constructs mathematically rigorous, computer-based tools for the assessment of network performance and efficiency, along with robustness and vulnerability analysis. The result is a thorough explorat