Record Nr. UNISA996466164803316 Autore Le Boudec Jean-Yves Titolo Network Calculus [[electronic resource]]: A Theory of Deterministic Queuing Systems for the Internet // by Jean-Yves Le Boudec, Patrick Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2001 **ISBN** 3-540-45318-0 Edizione [1st ed. 2001.] Descrizione fisica 1 online resource (XX, 276 p.) Collana Lecture Notes in Computer Science, , 0302-9743 ; ; 2050 Disciplina 004.678 Soggetti Computer science Computer communication systems Operating systems (Computers) Coding theory Information theory Application software Information storage and retrieval Popular Computer Science Computer Communication Networks **Operating Systems** Coding and Information Theory Information Systems Applications (incl. Internet) Information Storage and Retrieval Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Network Calculus -- Application of Network Calculus to the Internet --Nota di contenuto Basic Min-plus and Max-plus Calculus -- Min-plus and Max-plus System Theory -- Optimal Multimedia Smoothing -- FIFO Systems and Aggregate Scheduling -- Adaptive and Packet Scale Rate Guarantees --Time Varying Shapers -- Systems with Losses. Network Calculus is a set of recent developments that provide deep Sommario/riassunto

insights into flow problems encountered in the Internet and in intranets. The first part of the book is a self-contained, introductory

course on network calculus. It presents the core of network calculus, and shows how it can be applied to the Internet to obtain results that have physical interpretations of practical importance to network engineers. The second part serves as a mathematical reference used across the book. It presents the results from Min-plus algebra needed for network calculus. The third part contains more advanced material. It is appropriate reading for a graduate course and a source of reference for professionals in networking by surveying the state of the art of research and pointing to open problems in network calculus and its application in different fields, such as mulitmedia smoothing, aggegate scheduling, adaptive guarantees in Internet differential services, renegotiated reserved services, etc.