1. Record Nr. UNISA996465497303316

Autore	Habel Annegret
Titolo	Hyperedge Replacement: Grammars and Languages [[electronic resource] /] / by Annegret Habel
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1992
ISBN	3-540-47340-8
Edizione	[1st ed. 1992.]
Descrizione fisica	1 online resource (XI, 221 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 643
Disciplina	004.0151
Soggetti	Computers Programming languages (Electronic computers) Mathematical logic Combinatorics Theory of Computation Programming Languages, Compilers, Interpreters Mathematical Logic and Formal Languages Mathematical Logic and Foundations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	General Introduction -- to hyperedge-replacement grammars -- Basic properties of HRG's -- Characterizations of HRL's -- Structural aspects of HRL's -- Generative power of HRG's -- Graph-theoretic aspects of HRL's -- Boundedness aspects of HRL's -- Extensions and variations of HRG's -- Conclusion.
Sommario/riassunto	The area of graph grammars is theoretically attractive and well motivated byvarious applications. More than 20 years ago, the concept of graph grammars was introduced by A. Rosenfeld as a formulation of some problems in pattern recognition and image processing, as well as by H.J. Schneider as a method for data type specification. Within graph-grammar theory one maydistinguish the set-theoretical approach, the algebraic approach, and the logical approach. These approaches differ in the method in which graph replacement is described. Specific approaches, node replacement and hyperedge replacement, concern the basic units of a hypergraph, nodes and hyperedges. This

monograph is mainly concerned with the hyperedge-replacement approach. Hyperedge-replacement grammars are introduced as a device for generating hypergraph languages including graph languages and string languages. The concept combines a context-free rewriting with a comparatively large generative power. The volume includes a foreword by H. Ehrig.