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   Nota di contenuto   Graph Languages -- Some Remarks on the Generative Power of Collage
                       Grammars and Chain-Code Grammars -- Tree Languages Generated by
                       Context-Free Graph Grammars -- Neighborhood Expansion Grammars
                       -- Neighborhood-Preserving Node Replacements -- Graph Theory --
                       Complexity Issues in Switching of Graphs -- The Power of Local
                       Computations in Graphs with Initial Knowledge -- Categorical
                       Approaches -- Double-Pullback Graph Transitions: A Rule-Based
                       Framework with Incomplete Information -- Double-Pushout Approach
                       with Injective Matching -- Node Replacement in Hypergraphs:
                       Translating NCE Rewriting into the Pullback Approacht -- Pushout

Complements for Arbitrary Partial Algebras -- Concurrency and Distribution -- Unfolding of Double-Pushout Graph Grammars is a Coreflection -- Local Views on Distributed Systems and Their Communication -- Dynamic Change Management by Distributed Graph Transformation: Towards Configurable Distributed Systems -- A Framework for NLC and ESM: Local Action Systems -- Artificial Intelligence -- Redundancy and Subsumption in High-Level Replacement Systems -- Knowledge Representation and Graph Transformation -- Utilizing Constraint Satisfaction Techniques for Efficient Graph Pattern Matching -- Visual Languages -- Conceptual Model of the Graphical Editor GenGEd for the Visual Definition of Visual Languages -- From Formulae to Rewriting Systems -- Hypergraphs as a Uniform Diagram Representation Model -- Specification Concepts -- Story Diagrams: A New Graph Rewrite Language Based on the Unified Modeling Language and Java -- A Fully Abstract Model for Graph-Interpreted Temporal Logic -- More About Control Conditions for Transformation Units -- Integrity Constraints in the Multi-Paradigm Language PROGRES -- Modularity and Refinement -- A Framework for Adding Packages to Graph Transformation Approaches -- Refinements of Graph Transformation Systems via Rule Expressions -- Simple Modules for Grace -- UML Packages for PROgrammed Graph REwriting Systems -- Incremental Development of Safety Properties in Petri Net Transformations -- Software Engineering -- Using Graph Transformation Techniques for Integrating Information from the WWW -- A Model Making Automation Process (MMAP) Using a Graph Grammar Formalism -- Graph-Based Models for Managing Development Processes, Resources, and Products -- Deriving Software Performance Models from Architectural Patterns by Graph Transformations.

| Sommario/riassunto | Theareaofgraphtransformationoriginatedinthelate1960sunderthename "graph grammars" – the main motivation came from practical considerations concerning pattern recognition and compiler construction. Since then, the list of areas which have interacted with the development of graph transformation has grown impressively. The areas include: software speci?cation and development, VLSI layout schemes, database design, modeling of concurrent systems, m- sively parallel computer architectures, logic programming, computer animation, developmentalbiology,musiccomposition, distributedsystems,speci?cationl- guages, software and web engineering, and visual languages. As a matter of fact, graph transformation is now accepted as a fundamental computation paradigm where computation includes speci?cation, programming, and implementation. Over the last three decades the area of graph transfor-tion has developed at a steady pace into a theoretically attractive research ?eld, important for applications. Thisvolume consistsofpapersselectedfromcontributionsto the Sixth Int- national Workshop on Theory and Applications of Graph Transformation that took place in Paderborn, Germany, November 16-20, 1998. The papers und- went an additional refereeing process which yielded 33 papers presented here (out of 55 papers presented at the workshop). This collection of papers provides a very broad snapshot of the state of the art of the whole ?eld today. They are grouped into nine sections representing most active research areas. Theworkshopwasthe sixth in a seriesof internationalworkshopswhich take place every four years. Previous workshops were called "Graph Grammars and Their Application to Computer Science". The new name of the Sixth Workshop re?ectsmoreaccuratelythecurrentsituation, whereboththeoryandapplication play an equally central role. |