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Titolo	Formal Methods in Software and Systems Modeling [[electronic resource]] : Essays Dedicated to Hartmut Ehrig on the Occasion of His 60th Birthday // edited by Hans-Jörg Kreowski, Ugo Montanari, Fernando Orejas, Grzegorz Rozenberg, Gabriele Taentzer
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Collana	Programming and Software Engineering ; ; 3393
Disciplina	004/.01/51
Soggetti	Mathematical logic Computer logic Software engineering Computer science—Mathematics Programming languages (Electronic computers) Computers Mathematical Logic and Formal Languages Logics and Meanings of Programs Software Engineering Discrete Mathematics in Computer Science Programming Languages, Compilers, Interpreters Computation by Abstract Devices
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Graph Transformation -- On the Concurrent Semantics of Algebraic Graph Grammars -- From Graph Transformation to Software Engineering and Back -- Flexible Interconnection of Graph Transformation Modules -- Simulating Algebraic High-Level Nets by Parallel Attributed Graph Transformation -- Graph Processes with Fusions: Concurrency by Colimits, Again -- Graph Transformation with Variables -- Graph Transformation in Molecular Biology -- Changing Labels in the Double-Pushout Approach Can Be Treated Categorically

-- Algebraic Specification and Logic -- Modules, Brains and Schemas
-- From Conditional Specifications to Interaction Charts -- Algebraic
Properties of Interfaces -- ? T -Integration of Logics -- Functorial
Semantics of Rewrite Theories -- Expander2 -- Relationships Between
Equational and Inductive Data Types -- Cofree Coalgebras for Signature
Morphisms -- Formal and Visual Modeling -- Nested Constraints and
Application Conditions for High-Level Structures -- Synthesis Revisited:
Generating Statechart Models from Scenario-Based Requirements --
Main Concepts of Networks of Transformation Units with Interlinking
Semantics -- Embeddings and Contexts for Link Graphs -- Towards
Architectural Connectors for UML -- Loose Semantics of Petri Nets -- A
Formal Framework for the Development of Concurrent Object-Based
Systems -- A Formal Description of the Basic Concepts of System
Theory for Transportation.

Sommario/riassunto

By presenting state-of-the-art research results on various aspects of formal and visual modeling of software and systems, this book commemorates the 60th birthday of Hartmut Ehrig. The 24 invited reviewed papers are written by students and collaborators of Hartmut Ehrig who are established researchers in their fields. Reflecting the scientific interest and work of Hartmut Ehrig, the papers fall into three main parts on graph transformation, algebraic specification and logic, and formal and visual modeling.
