1. Record Nr. UNINA9910298654403321

Titolo	Molecular Machines and Motors : Recent Advances and Perspectives / / edited by Alberto Credi, Serena Silvi, Margherita Venturi
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2014
ISBN	3-319-08678-2
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (X, 342 p. 249 illus., 137 illus. in color.)
Collana	Topics in Current Chemistry, , 0340-1022 ; ; 354
Disciplina	541.394
Soggetti	Biotechnology Microengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographic references and index.
Sommario/riassunto	The cutting-edge advances in this research field are nicely pictured in the chapters of this volume. They come from world’s leading laboratories engaged in the development of molecular machines and are authored by some of the most respected scientists in the field. This volume shows, on the one hand, the level of ingenuity and technical capability reached in the construction of artificial nanomachines roughly two decades after their inception. On the other hand, it conveys the excitement about the enormous opportunities as well as the challenges this research area presents, as the interest of researchers is shifting from ensemble to single-molecule measurements and from homogeneous to heterogeneous environments. Indeed, as Feynman said “when we have some control of the arrangement of things on a molecular scale, we will get an enormously greater range of possible properties that substances can have.” Although the answer to the “when” question is not easy to find, there is no doubt that artificial molecular machines and motors will lead to a wide variety of applications which we cannot even envisage today. The Nobel Prize in Chemistry 2016 was awarded jointly to Jean-Pierre Sauvage, Sir J. Fraser Stoddart and Bernard L. Feringa "for the design and synthesis of molecular machines". Both Jean-Pierre Sauvage and Bernard L. Feringa contributed to this volume. The goal of each thematic volume in this

	series is to give the non-specialist reader, whether in academia or industry, a comprehensive insight into an area where new research is emerging which is of interest to a larger scientific audience. Each review within the volume critically surveys one aspect of that topic and places it within the context of the volume as a whole. The most significant developments of the last 5 to 10 years are presented using selected examples to illustrate the principles discussed. The coverage is not intended to be an exhaustive summary of the field or include large quantities of data, but should rather be conceptual, concentrating on the methodological thinking that will allow the non-specialist reader to understand the information presented. Contributions also offer an outlook on potential future developments in the field. Review articles for the individual volumes are invited by the volume editors. Readership: research chemists at universities or in industry, graduate students.

2.

Record Nr.	UNINA9910483992103321
Titolo	Theory and Practice of Model Transformations : Third International Conference, ICMT 2010, Malaga, Spain, June 28-July 2, 2010. Proceedings / / edited by Laurence Tratt, Martin Gogolla
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2010
ISBN	1-280-38724-6 9786613565167 3-642-13688-5
Edizione	[1st ed. 2010.]
Descrizione fisica	1 online resource (X, 278 p. 95 illus.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 6142
Altri autori (Persone)	GogollaMartin TrattLaurence
Disciplina	005.10285
Soggetti	Software engineering Computer science Compilers (Computer programs) Computer networks Computer programming Machine theory Software Engineering Computer Science Logic and Foundations of Programming Compilers and Interpreters Computer Communication Networks Programming Techniques

	Formal Languages and Automata Theory
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.
Nota di contenuto	Invited Paper -- Search Computing: A Model-Driven Perspective -- Research Papers -- Domain-Specific Composition of Model Deltas -- Temporal Model-Based Diagnostics Generation for HVAC Control Systems -- Synthesis of OCL Pre-conditions for Graph Transformation Rules -- From State- to Delta-Based Bidirectional Model Transformations -- A Constructive Approach to Testing Model Transformations -- From Sequence Diagrams to State Machines by Graph Transformation -- Safe Composition of Transformations -- Towards Incremental Execution of ATL Transformations -- Constructing and Navigating Non-invasive Model Decorations -- Model-to-Model Transformations By Demonstration -- Implementing Business Process Recovery Patterns through QVT Transformations -- Model Migration with Epsilon Flock -- Exceptional Transformations -- Improving Higher-Order Transformations Support in ATL -- Towards a Rewriting Logic Semantics for ATL -- Metamodel Matching Based on Planar Graph Edit Distance -- Surviving the Heterogeneity Jungle with Composite Mapping Operators.
Sommario/riassunto	Model transformations are the glue that tie modelling activities together. If you’ve used modelling in anger then, whether you know it or not, you’ve used model transformations. They come in all shapes and sizes from moving models between di?erent tools to generating implementations. Model transformations have humble beginnings—at one point, not long ago, it was said by many ‘in the know’ that the way forward in model transformations was to use XSLT. That this idea now raises a wry smile shows how far the model transformation community has come in a short time. Where once model transformations were hacked together in a variety of unsuitable languages, we now have a number of powerful, dedicated languages and theories at our disposal. Since 2008, the ICMT conference series has played a huge part in advancing the subject, and this third edition was no di?erent. The theories and languages presented at ICMT have allowed principled model transformations to play an ever greater part in real systems. Of course there is still much more to do: we need our model transformations, languages, and theories to scale further, allow greater expressivity, be more ?exible, and aid reusability; and we lack empirically backed studies of model transformations in use. Doubtless you can think of other gaps. Yet, though some real-world challenges lie just beyond our reach,eachyearseesonce-dauntingproblemsconquered. Muchofthatprogressis nowdriven byICMT, andthis year’sedition showedhow model transformations are increasingly being used in previously unfamiliar areas.