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	Altri autori (Persone)	MunchJurgen SchmidKlaus
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	Nota di contenuto	Preface (Jürgen Münch, Klaus Schmid) -- Empirical Software Engineering Models: Can They Become the Equivalent of Physical Laws in Traditional Engineering? (H. Dieter Rombach) -- Part I. Software Development: Notation, Architecture, and Process -- Domain Modeling and Domain Engineering – Key Tasks in Requirements Engineering (Manfred Broy) -- Towards Agile Verification (Carlo Ghezzi, Amir Molzam Sharifloo, Claudio Menghi) -- On Model-based Software Development (Constance L. Heitmeyer, Sandeep Shukla, Myla M. Archer, Elizabeth I. Leonard) -- From Software Systems to Complex Software Ecosystems: Model- and Constraint-based Engineering of Ecosystems (Andreas Rausch, Christian Bartelt, Sebastian Herold, Holger Klus, Dirk Niebuhr) -- A Safety Roadmap to Cyber-Physical Systems (Mario Trapp, Daniel Schneider, Peter Liggesmeyer) -- Modeling Complex Information Systems (Jörg Dörr) -- Continuous Process Improvement (Jens Heidrich) -- Part II. Empirical Research and Studies -- Paths to Software Engineering Evidence (Ross Jeffery) -- An Evidence Profile for Software Engineering Research and Practice (Claes Wohlin) -- Challenges of Evaluating the Quality of Software Engineering Experiments (Oscar Dieste, Natalia Juristo) -- Technical Debt: Showing the Way for Better Transfer of Empirical Results (Forrest Shull, Davide Falessi, Carolyn Seaman, Madeline Diep, Lucas Layman) -- An Empirical Investigation of the Component-based Performance Prediction Method Palladio (Ralf

Reussner, Steffen Becker, Anne Koziolek, Heiko Koziolek) -- Can We Trust Software Repositories? (Andreas Zeller) -- Empirical Practice in Software Engineering (Andreas Jedlitschka, Liliana Guzmán, Jessica Jung, Constanza Lampasona, Silke Steinbach) -- Part III. Visions on the Future of Software Engineering as a Discipline -- What is Software? The Role of Empirical Methods in Answering the Question (Lee Osterweil) -- A Personal Perspective on the Evolution of Empirical Software Engineering (Victor R. Basili) -- Moving toward Evidence-based Software Production (David Weiss, James Kirby Jr., Robyn R. Lutz) -- Skating to Where the Puck Is Going: Future Systems and Software Engineering Opportunities and Challenges (Barry Boehm) -- Formalism and Intuition in Software Engineering (Michael Jackson) -- Education of Software Engineers (Marvin Zelkowitz) -- Integrated Software Product and Process Lines (Dieter Rombach).

| Sommario/riassunto | The dependence on quality software in all areas of life is what makes software engineering a key discipline for today's society. Thus, over the last few decades it has been increasingly recognized that it is particularly important to demonstrate the value of software engineering methods in real-world environments, a task which is the focus of empirical software engineering. One of the leading protagonists of this discipline worldwide is Prof. Dr. Dr. h.c. Dieter Rombach, who dedicated his entire career to empirical software engineering. For his many important contributions to the field he has received numerous awards and recognitions, including the U.S. National Science Foundation's Presidential Young Investigator Award and the Cross of the Order of Merit of the Federal Republic of Germany. He is a Fellow of both the ACM and the IEEE Computer Society. This book, published in honor of his 60th birthday, is dedicated to Dieter Rombach and his contributions to software engineering in general, as well as to empirical software engineering in particular.   This book presents invited contributions from a number of the most internationally renowned software engineering researchers like Victor Basili, Barry Boehm, Manfred Broy, Carlo Ghezzi, Michael Jackson, Leon Osterweil, and, of course, by Dieter Rombach himself. Several key experts from the Fraunhofer IESE, the institute founded and led by Dieter Rombach, also contributed to the book. The contributions summarize some of the most important trends in software engineering today and outline a vision for the future of the field. The book is structured into three main parts. The first part focuses on the classical foundations of software engineering, such as notations, architecture, and processes, while the second addresses empirical software engineering in particular as the core field of Dieter Rombach's contributions. Finally, the third part discusses a broad vision for the future of software engineering. |