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	Descrizione fisica	1 online resource (458 p.)
	Collana	The European Consortium for Mathematics in Industry ; ; 19
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	Soggetti	Mathematical models
		Computer mathematics
		Differential equations
		Economics, Mathematical
		Partial differential equations
		Calculus of variations
		Mathematical Modeling and Industrial Mathematics
		Computational Mathematics and Numerical Analysis
		Ordinary Differential Equations
		Quantitative Finance
		Partial Differential Equations
		Calculus of Variations and Optimal Control; Optimization
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	Preface -- 25 Years of ECMI: A View Back to its Childhood -- Part I Circuits and Electromagnetic Devices -- Part II Environment -- Part III Fibers -- Part IV Flow -- Part V Medicine -- Part VI Robotics and Automotive Industry -- Part VII Further Applications -- Part VIII Methods -- Part IX Education.
	Sommario/riassunto	This book contains the proceedings of the 17th European Conference on Mathematics for Industry, ECMI2012, held in Lund, Sweden, July 2012, at which ECMI celebrated its 25th anniversary. It covers mathematics in a wide range of applications and methods, from circuit

and electromagnetic devices, environment, fibers, flow, medicine, robotics and automotive industry, further applications to methods and education. The book includes contributions from leading figures in business, science and academia who promote the application of mathematics to industry and emphasize industrial sectors that offer the most exciting opportunities. The contributions reinforce the role of mathematics as being a catalyst for innovation as well as an overarching resource for industry and business. The book features an accessible presentation of real-world problems in industry and finance, provides insight and tools for engineers and scientists which will help them to solve similar problems, and offers modeling and simulation techniques that will provide mathematicians with a source of fresh ideas and inspiration.