1. Record Nr. UNINA9910254061403321

Titolo	Scientific Computing in Electrical Engineering : SCEE 2014, Wuppertal, Germany, July 2014 / / edited by Andreas Bartel, Markus Clemens, Michael Günther, E. Jan W. ter Maten
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-30399-6
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (251 p.)
Collana	The European Consortium for Mathematics in Industry ; ; 23
Disciplina	621.30285
Soggetti	Mathematical models Computer mathematics Applied mathematics Engineering mathematics Computer-aided engineering Computer simulation Physics Mathematical Modeling and Industrial Mathematics Computational Science and Engineering Mathematical and Computational Engineering Computer-Aided Engineering (CAD, CAE) and Design Simulation and Modeling Numerical and Computational Physics, Simulation
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 indexes.
Nota di contenuto	Part I Device Modelling, Electric Circuits and Simulation -- Part II Computational Electromagnetics -- Part III Coupled Problems -- Part IV Model Order Reduction -- Part V Uncertainty Quantification.
Sommario/riassunto	This book is a collection of selected papers presented at the 10th International Conference on Scientific Computing in Electrical Engineering (SCEE), held in Wuppertal, Germany in 2014. The book is divided into five parts, reflecting the main directions of SCEE 2014: 1.

Device Modeling, Electric Circuits and Simulation, 2. Computational Electromagnetics, 3. Coupled Problems, 4. Model Order Reduction, and 5. Uncertainty Quantification. Each part starts with a general introduction followed by the actual papers. The aim of the SCEE 2014 conference was to bring together scientists from academia and industry, mathematicians, electrical engineers, computer scientists, and physicists, with the goal of fostering intensive discussions on industrially relevant mathematical problems, with an emphasis on the modeling and numerical simulation of electronic circuits and devices, electromagnetic fields, and coupled problems. The methodological focus was on model order reduction and uncertainty quantification. <this book="" will="" appeal="" to="" mathematicians="" and="" electrical="" engineers.="" it="" offers="" a="" valuable="" starting="" point="" for="" developers="" of="" algorithms="" programs="" who="" want="" learn="" about="" recent="" advances="" in="" other="" fields="" as="" well="" open="" problems="" coming="" from="" industry.="" moreover,="" be="" use="" representatives="" industry="" with="" an="" interest="" new="" program="" tools="" mathematical="" methods.