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| Soggetti | Mathematical models Mathematics - Data processing Electrical engineering Computer-aided engineering Computer simulation Mathematical physics Mathematical Modeling and Industrial Mathematics Computational Science and Engineering Electrical and Electronic Engineering Computer-Aided Engineering (CAD, CAE) and Design Computer Modelling Theoretical, Mathematical and Computational Physics |
| Lingua di pubblicazione | Inglese |
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| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Foreword -- Preface -- Acknowledgements -- Part I Computational Electromagnetics -- Part II Circuit and Device Modelling & Simulation -- Part III Coupled Problems and Multi-Scale Approaches in Space and Time -- Part IV Mathematical and Computational Methods Including Uncertainty Quantification -- Part V Model Order Reduction -- Part VI Industrial Applications -- Index. |
| Sommario/riassunto | This collection of selected papers presented at the 11th International Conference on Scientific Computing in Electrical Engineering (SCEE), |

held in St. Wolfgang, Austria, in 2016, showcases the state of the art in SCEE. The aim of the SCEE 2016 conference was to bring together scientists from academia and industry, mathematicians, electrical engineers, computer scientists, and physicists, and to promote 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 focus in methodology was on model order reduction and uncertainty quantification. This extensive reference work is divided into six parts: Computational Electromagnetics, Circuit and Device Modeling and Simulation, Coupled Problems and MultiScale Approaches in Space and Time, Mathematical and Computational Methods Including Uncertainty Quantification, Model Order Reduction, and Industrial Applications. Each part starts with a general introduction, followed by the respective contributions. This book will appeal to mathematicians and electrical engineers. Further, it introduces algorithm and program developers to recent advances in the other fields, while industry experts will be introduced to new programming tools and mathematical methods.
