

1. Record Nr.	UNINA9910299679603321
Titolo	Multiphysics Modelling and Simulation for Systems Design and Monitoring [[electronic resource] ] : Proceedings of the Multiphysics Modelling and Simulation for Systems Design Conference, MMSSD 2014, 17-19 December, Sousse, Tunisia // edited by Mohamed Haddar, Mohamed Slim Abbes, Jean-Yves Choley, Taoufik Boukharouba, Tamer Elnady, Andrei Kanaev, Mounir Ben Amar, Fakher Chaari
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-14532-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (551 p.)
Collana	Applied Condition Monitoring, , 2363-698X ; ; 2
Disciplina	004.21
Soggetti	Machinery Vibration Dynamical systems Dynamics Computational complexity Quality control Reliability Industrial safety Machinery and Machine Elements Vibration, Dynamical Systems, Control Complexity Quality Control, Reliability, Safety and Risk
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 and index.
Nota di contenuto	From the Contents: Influence of the plies orientation on the rigidity of the laminated composites -- Simplified Calculation Methods on Smoke and Temperature Stratification in Ventilated Compartments -- Analysis of the notched specimens on the fracture behaviour by the volumetric Method -- Temperature effect on shear flow and time dependant modelling of cutting oil Emulsion.

This book reports on the state of the art in the field of multiphysics systems. It consists of accurately reviewed contributions to the MMSSD' 2014 conference, which was held from December 17 to 19, 2014 in Hammamet, Tunisia. The different chapters, covering new theories, methods and a number of case studies, provide readers with an up-to-date picture of multiphysics modeling and simulation. They highlight the role played by high-performance computing and newly available software in promoting the study of multiphysics coupling effects, and show how these technologies can be practically implemented to bring about significant improvements in the field of design, control and monitoring of machines. In addition to providing a detailed description of the methods and their applications, the book also identifies new research issues, challenges and opportunities, thus providing researchers and practitioners with both technical information to support their daily work and a new source of inspiration for their future research.

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