1. Record Nr. UNINA9910158704803321

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Titolo	Advanced Finite Element Simulation with MSC Marc : Application of User Subroutines / / by Zia Javanbakht, Andreas Öchsner
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-47668-8
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XV, 347 p. 58 illus.)
Disciplina	620.1
Soggetti	Mechanics, Applied Solids Numerical analysis Computer-aided engineering Compilers (Computer programs) Solid Mechanics Numerical Analysis Computer-Aided Engineering (CAD, CAE) and Design Compilers and Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Fortran - Advanced Features -- Introduction to Marc/Mentat -- Basic Examples -- Advanced Examples -- A Listing of the Customized Modules.
Sommario/riassunto	This book offers an in-depth insight into the general-purpose finite element program MSC Marc, which is distributed by MSC Software Corporation. It is a specialized program for nonlinear problems (implicit solver) which is common in academia and industry. The primary goal of this book is to provide a comprehensive introduction to a special feature of this software: the user can write user-subroutines in the programming language Fortran, which is the language of all classical finite element packages. This subroutine feature allows the user to replace certain modules of the core code and to implement new features such as constitutive laws or new elements. Thus, the functionality of commercial codes (‘black box’) can easily be extended

by linking user written code to the main core of the program. This feature allows to take advantage of a commercial software package with the flexibility of a ‘semi-open’ code. .