

1. Record Nr.	UNINA9910800190003321
Autore	Howard Carl Q. <1970, >
Titolo	Acoustic analyses using Matlab and Ansys / / Carl Q. Howard and Benjamin S. Cazzolato
Pubbl/distr/stampa	Boca Raton : , : CRC Press, , [2015] ©2015
ISBN	0-429-06964-2 1-4822-2327-9
Descrizione fisica	1 online resource (705 p.)
Classificazione	TEC001000TEC009070
Disciplina	620.20285/53
Soggetti	Acoustical engineering - Mathematics Finite element method - Data processing ANSYS (Computer system)
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.
Nota di contenuto	Front Cover; Contents; List of Figures; List of Tables; Foreword; Preface; Acknowledgments; Chapter 1 - Introduction; Chapter 2 - Background; Chapter 3 - Ducts; Chapter 4 - Sound Inside a Rigid-Walled Cavity; Chapter 5 - Introduction to Damped Acoustic Systems; Chapter 6 - Sound Absorption in a Lined Duct; Chapter 7 - Room Acoustics; Chapter 8 - Radiation and Scattering; Chapter 9 - Fluid-Structure Interaction; Appendix A - Files Included with This Book; Appendix B - Advice for Using ANSYS; Appendix C - MATLAB Functions for Modal Coupling; Appendix D - Errors Appendix E - Export of Nodal Area from ANSYSReferences; Back Cover
Sommario/riassunto	This book describes the use of Ansys finite element analysis software and MATLAB to solve acoustic problems. These range from simple textbook problems, to complex ones that can only be solved using FEA software. The book includes instructions on relevant mathematical modelling, and hints on the use of Ansys software. The MATLAB source code provides readers with valuable tools for doing their own validations, and is available for download. The book provides practical training in the use of FEA for basic modelling and solving acoustic problems--

This book describes the use of Ansys finite element analysis software
and MATLAB.
