

1. Record Nr.	UNINA9910978263503321
Autore	He Zeng
Titolo	Solved Problems in Nonlinear Oscillations : A sourcebook for scientists and engineers // by Zeng He, Wen Jiang, Lin Wang
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	9789819761135 9819761131
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (1045 pages)
Altri autori (Persone)	JiangWen WangLin
Disciplina	620.3
Soggetti	Multibody systems Vibration Mechanics, Applied System theory Control theory Dynamics Continuum mechanics Multibody Systems and Mechanical Vibrations Systems Theory, Control Dynamical Systems Continuum Mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Problem Lists -- Conservative Single-Degree-of-Freedom Systems -- Nonconservative Single-Degree-of-Freedom Systems -- Forced Oscillations of Systems Having a Single Degree of Freedom -- Parametrically Excited Systems -- Systems Having Finite Degrees of Freedom -- Continuous Systems -- Traveling Waves.
Sommario/riassunto	This is an open access book. This textbook contains about 200 fully solved problems in analytical and numerical methods for nonlinear oscillations. These comprise all the end-of-chapter problems in Ali H. Nayfeh and Dean T. Mook's famous textbook Nonlinear Oscillations. Mathematical software are adopted to make those solutions more

accessible from a graphical point of view. This book can be adopted as a supplement to course work study for graduates or senior undergraduates. Since many exercise problems are adapted from scientific research papers, this book also has a good reference value for scientists and engineers who work in nonlinear vibration.
