

1. Record Nr.	UNINA9910811910503321
Autore	Jordan D. W (Dominic William)
Titolo	Nonlinear ordinary differential equations [[electronic resource]] : problems and solutions : a sourcebook for scientists and engineers // D.W. Jordan and P. Smith
Pubbl/distr/stampa	Oxford, : Oxford University Press, 2007
ISBN	1-383-03499-0 1-281-16088-1 9786611160883 0-19-152640-1 1-4356-1803-3
Descrizione fisica	1 online resource (594 p.)
Collana	Oxford Texts in Applied and Engineering Mathematics ; ; v.No. 11
Altri autori (Persone)	SmithPeter <1935->
Disciplina	515.352
Soggetti	Differential equations, Nonlinear Nonlinear theories
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	Contents; 1 Second-order differential equations in the phase plane; 2 Plane autonomous systems and linearization; 3 Geometrical aspects of plane autonomous systems; 4 Periodic solutions; averaging methods; 5 Perturbation methods; 6 Singular perturbation methods; 7 Forced oscillations: harmonic and subharmonic response, stability, and entrainment; 8 Stability; 9 Stability by solution perturbation: Mathieu's equation; 10 Liapunov methods for determining stability of the zero solution; 11 The existence of periodic solutions; 12 Bifurcations and manifolds 13 Poincare sequences, homoclinic bifurcation, and chaos References
Sommario/riassunto	An ideal companion to the student textbook Nonlinear Ordinary Differential Equations 4th Edition (OUP, 2007) this text contains over 500 problems and solutions in nonlinear differential equations, many of which can be adapted for independent coursework and self-study. - An ideal companion to the new 4th Edition of Nonlinear Ordinary Differential Equations by Jordan and Smith (OUP, 2007), this text contains over 500 problems and fully-worked solutions in nonlinear

differential equations. With 272 figures and diagrams, subjects covered include phase diagrams in the plane, classification of equi

---