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Autore	Sinha D. K (Dilip Kumar), <1940->
Titolo	Basics of nonlinearities in mathematical sciences // Dilip Kumar Sinha [[electronic resource]]
Pubbl/distr/stampa	London : , : Anthem Press, , 2006
ISBN	1-283-37868-X 9786613378682 1-84331-356-1
Descrizione fisica	1 online resource (323 pages) : digital, PDF file(s)
Collana	Anthem studies in science, technology, and mathematics
Disciplina	515.35
Soggetti	Nonlinear theories
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 02 Oct 2015).
Nota di contenuto	Preamble -- Motivation -- Recapturing linear ordinary differential equations -- Linear systems : qualitative behaviour -- Stability studies -- Study of equilibria : another approach -- Non-linear vis a vis linear systems -- Stability aspects : Liapunov's direct method -- Manifolds : introduction and applications in nonlinearity studies -- Periodicity : orbits, limit cycles, Poincare map -- Bifurcations : a prelude -- Catastrophes : a prelude -- Theorizing, further, bifurcations and catastrophes -- Dynamical systems -- Epilogue.
Sommario/riassunto	An attempt to familiarize the reader with nonlinear systems, in particular qualitative characteristics in a variety of systems amenable to mathematization.