

1. Record Nr.	UNISA996466768303316
Titolo	Delay differential equations and dynamical systems : proceedings of a conference in honor of Kenneth Cooke held in Claremont, California, Jan. 13-16, 1990 // edited by Stavros Busenberg, Mario Martelli
Pubbl/distr/stampa	Berlin, Germany : , : Springer, , [1991] ©1991
ISBN	3-540-47418-8
Edizione	[1st ed. 1991.]
Descrizione fisica	1 online resource (VIII, 256 p.)
Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 1475
Disciplina	515.39
Soggetti	Differentiable dynamical systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	A survey of differential equations with piecewise continuous arguments -- Dynamics and delays -- A brief survey of persistence in dynamical systems -- Periodic orbits of planar polynomial Liénard systems with a small parameter -- Hopf bifurcation in quasilinear reaction-diffusion systems -- Monotone semi-flows which have a monotone first integral -- The coincidence degree of some functional differential operators in spaces of periodic functions and related continuation theorems -- On the stability of discrete equations and ordinary differential equations -- Systems of set-valued equations in Banach spaces -- Abstract volterra equations and weak topologies -- Semigroups and renewal equations on dual Banach spaces with applications to population dynamics -- Estimates for spatio-temporally dependent reaction diffusion systems -- The mountain circle theorem -- Extensions of an algorithm for the analysis of nongeneric Hopf bifurcations, with applications to delay-difference equations -- The forced spherical pendulum does have forced oscillations -- Radial bounds for Schrödinger operators in euclidean domains -- Jumping nonlinearity for 2nd order ODE with positive forcing -- Moment conditions for a Volterra integral equation in a Banach space -- Asymptotic behaviors of solutions of a system of linear ordinary differential equations as $t \rightarrow \infty$ -- Implicit differential equations which are not solvable for the highest derivative -- A stability analysis for a class of differential-delay equations having time-

varying delay -- On an interval map associated with a delay logistic equation with discontinuous delays.

Sommario/riassunto

The meeting explored current directions of research in delay differential equations and related dynamical systems and celebrated the contributions of Kenneth Cooke to this field on the occasion of his 65th birthday. The volume contains three survey papers reviewing three areas of current research and seventeen research contributions. The research articles deal with qualitative properties of solutions of delay differential equations and with bifurcation problems for such equations and other dynamical systems. A companion volume in the biomathematics series (LN in Biomathematics, Vol. 22) contains contributions on recent trends in population and mathematical biology.
