

1. Record Nr.	UNICAMPANIAVAN00268574
Titolo	Differential Equation Models / edited by Martin Braun, Courtney S. Coleman, Donald A. Drew
Pubbl/distr/stampa	New York, : Springer-Verlag, 1983
Descrizione fisica	xix, 380 p. : ill. ; 24 cm
Soggetti	34-XX - Ordinary differential equations [MSC 2020] 34A12 - Initial value problems, existence, uniqueness, continuous dependence and continuation of solutions to ordinary differential equations [MSC 2020] 90B15 - Stochastic network models in operations research [MSC 2020] 92D25 - Population dynamics (general) [MSC 2020]
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The purpose of this four volume series is to make available for college teachers and students samples of important and realistic applications of mathematics which can be covered in undergraduate programs. The goal is to provide illustrations of how modern mathematics is actually employed to solve relevant contemporary problems. Although these independent chapters were prepared primarily for teachers in the general mathematical sciences, they should prove valuable to students, teachers, and research scientists in many of the fields of application as well. Prerequisites for each chapter and suggestions for the teacher are provided. Several of these chapters have been tested in a variety of classroom settings, and all have undergone extensive peer review and revision. Illustrations and exercises are included in most chapters. Some units can be covered in one class, whereas others provide sufficient material for a few weeks of class time. Volume 1 contains 23 chapters and deals with differential equations and, in the last four chapters, problems leading to partial differential equations. Applications are taken from medicine, biology, traffic systems and several other fields. The 14 chapters in Volume 2 are devoted mostly to problems arising in political science, but they also address questions

appearing in sociology and ecology. Topics covered include voting systems, weighted voting, proportional representation, coalitional values, and committees. The 14 chapters in Volume 3 emphasize discrete mathematical methods such as those which arise in graph theory, combinatorics, and networks.
