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Autore	Losson Jerome
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Descrizione fisica	1 online resource (IX, 138 p. 37 illus., 9 illus. in color.)
Collana	Fields Institute Monographs, , 1069-5273 ; ; 38
Disciplina	515
Soggetti	Delay differential equations Mathematical analysis Measure theory
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I. Introduction and Background to Density Evolution Problems -- 1. Introduction and Motivation -- 2. Density Evolution in Systems with Finite Dimensional Dynamics -- Part II. Illustrating the Problem and Making it Precise for Differential Delay Equations -- 3. Dynamics in Ensembles of Differential Delay Equations -- 4. The Problem -- III. Possible Analytical Approaches -- 5. The Hopf Functional Approach -- 6. The Method of Steps -- Part IV. Possible Approximating Solutions -- 7. Turning a Differential Delay Equation into a High-Dimensional Map -- 8. Approximate "Liouville-like" Equation -- 9. Summary and Conclusions -- References -- Index.
Sommario/riassunto	This monograph has arisen out of a number of attempts spanning almost five decades to understand how one might examine the evolution of densities in systems whose dynamics are described by differential delay equations. Though the authors have no definitive solution to the problem, they offer this contribution in an attempt to define the problem as they see it, and to sketch out several obvious attempts that have been suggested to solve the problem and which seem to have failed. They hope that by being available to the general mathematical community, they will inspire others to consider—and hopefully solve—the problem. Serious attempts have been made by all of

the authors over the years and they have made reference to these  
where appropriate. .

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