

1. Record Nr.	UNINA9910146309003321
Autore	Pilyugin Sergei Yu (Sergei Yurievitch), <1947->
Titolo	Shadowing in Dynamical Systems / / by Sergei Yu. Pilyugin
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1999
ISBN	3-540-48429-9
Edizione	[1st ed. 1999.]
Descrizione fisica	1 online resource (XX, 276 p.)
Collana	Lecture Notes in Mathematics, , 1617-9692 ; ; 1706
Classificazione	37C50
Disciplina	515.352
Soggetti	Global analysis (Mathematics) Manifolds (Mathematics) Dynamics Global Analysis and Analysis on Manifolds Dynamical Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Shadowing Near an Invariant Set: Basic Definitions. Shadowing Near a Hyperbolic Set for a Diffeomorphism. Shadowing for Mappings of Banach Spaces. Limit Shadowing. Shadowing for Flows -- Topologically Stable, Structurally Stable, and Generic Systems: Shadowing and Topological Stability. Shadowing in Structurally Stable Systems. Shadowing in Two-Dimensional Diffeomorphisms. C0-Genericity of Shadowing for Homeomorphisms -- Systems with Special Structure: One-Dimensional Systems. Linear and Linearly Induced Systems. Lattice Systems. Global Attractors for Evolution Systems -- Numerical Applications of Shadowing: Finite Shadowing. Periodic Shadowing for Flows. Approximation of Spectral Characteristics. Approximation of the Morse Spectrum. Discretizations of PDEs -- References -- Index.
Sommario/riassunto	This book is an introduction to the theory of shadowing of approximate trajectories in dynamical systems by exact ones. This is the first book completely devoted to the theory of shadowing. It shows the importance of shadowing theory for both the qualitative theory of dynamical systems and the theory of numerical methods. Shadowing Methods allow us to estimate differences between exact and approximate solutions on infinite time intervals and to understand the

influence of error terms. The book is intended for specialists in dynamical systems, for researchers and graduate students in the theory of numerical methods.

2. Record Nr.

**Titolo**

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**Pubbl/distr/stampa**

Disposal of Dangerous Chemicals in Urban Areas and Mega Cities : Role of Oxides and Acids of Nitrogen in Atmospheric Chemistry / / edited by Ian Barnes, Krzysztof J. Rudziski

**ISBN**

Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2013

**Edizione**

94-007-5034-X

**Descrizione fisica**

[1st ed. 2013.]

**Collana**

1 online resource (XV, 346 p. 142 illus.)

NATO Science for Peace and Security Series C: Environmental Security, , 1874-6543

**Altri autori (Persone)**

Barnesian

RudzinskiKrzysztof J

**Disciplina**

628.42

**Soggetti**

Environmental chemistry  
Environmental monitoring  
Pollution  
Spectrum analysis  
Environmental Chemistry  
Environmental Monitoring  
Spectroscopy

**Lingua di pubblicazione**

Inglese

**Formato**

Materiale a stampa

**Livello bibliografico**

Monografia

**Note generali**

Bibliographic Level Mode of Issuance: Monograph

**Nota di bibliografia**

Includes bibliographical references and index.

**Sommario/riassunto**

Oxides and acids of nitrogen play an important role in regulating atmospheric radical levels, in particular, that of the OH radical the main initiator of the degradation of chemicals in the atmosphere. A comprehensive overview on the methods used to measure nitrogen oxides and acids in the troposphere is given and difficulties and artefacts associated with the use of the techniques for measurements in urban and mega city environments is illustrated. State-of-the-art methods for the measurement of OH and HO<sub>2</sub> radicals are reviewed

and recently recognised difficulties, in particular with the measurement of HO<sub>2</sub> radicals, are highlighted. Other contributions to the book cover our present understanding of the gas, aqueous and particulate/aerosol phase atmospheric degradation chemistry of volatile organic compounds (VOCs) under NO<sub>x</sub> conditions typical of rural, urban and mega city environments. Examples of measurements of NO<sub>x</sub> and VOCs in the atmospheres of these environments are given, in particular for the megacities Cairo and Beijing, in conjunction with modelling studies which attempt to simulate the field observations using state-of-the art knowledge on the chemistry of the VOCs and radical levels. .

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