

1.	Record Nr.	UNISA990006038420203316
	Titolo	Il diritto dell'arte
	Pubbl/distr/stampa	Milano : Skira
	Descrizione fisica	volumi ; 25 cm
	Disciplina	344.45094
	Soggetti	Opere d'arte -- Italia -- Diritto
	Collocazione	XII.3.A. /3
	Lingua di pubblicazione	Italiano
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
2.	Record Nr.	UNICAMPANIASUN0060657
	Titolo	Dynamical systems, ergodic theory and applications / L. A. Bunimovich ... [etc.] ; edited by Ya. G. Sinai
	Pubbl/distr/stampa	Berlin, : Springer, 2000
	ISBN	35-406-6316-9
	Edizione	[2. expanded and rev. ed]
	Descrizione fisica	XI, 460 p. : ill. ; 24 cm.
	Soggetti	37Axx - Ergodic theory [MSC 2020] 28Dxx - Measure-theoretic ergodic theory [MSC 2020]
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia

3. Record Nr.	UNISA996466544903316
Autore	Glizer Valery Y.
Titolo	Controllability of singularly perturbed linear time delay systems // Valery Y. Glizer
Pubbl/distr/stampa	Cham, Switzerland : , : Birkhauser, , [2021] ©2021
ISBN	3-030-65951-8
Descrizione fisica	1 online resource (429 pages)
Collana	Systems and Control: Foundations and Applications
Disciplina	003.74
Soggetti	Linear systems Control theory Sistemes lineals Teoria de control Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Contents -- 1 Introduction -- 1.1 Real-Life Models -- 1.1.1 Neurosystem Model -- 1.1.2 Sunflower Equation -- 1.1.3 Model of Nuclear Reactor Dynamics -- 1.1.4 Model of Controlled Coupled-Core Nuclear Reactor -- 1.1.5 Car-Following Model: Lane as a Simple Open Curve -- 1.1.6 Car-Following Model: Lane as a Simple Closed Curve -- References -- 2 Singularly Perturbed Linear Time Delay Systems -- 2.1 Introduction -- 2.2 Singularly Perturbed Systems with Small Delays -- 2.2.1 Original System -- 2.2.2 Slow-Fast Decomposition of the Original System -- 2.2.3 Fundamental Matrix Solution -- 2.2.4 Estimates of Solutions to Singularly Perturbed Matrix Differential Systems with Small Delays -- 2.2.5 Example 1 -- 2.2.6 Example 2: Tracking Model with Delay -- 2.2.7 Example 3: Analysis of Neurosystem Model -- 2.2.8 Example 4: Analysis of Sunflower Equation -- 2.2.9 Proof of Lemma 2.2 -- 2.2.10 Proof of Theorem 2.1 -- 2.2.10.1 Technical Proposition -- 2.2.10.2 Main Part of the Proof -- 2.3 Singularly Perturbed Systems with Delays of Two Scales -- 2.3.1 Original System -- 2.3.2 Slow-Fast Decomposition of the Original System -- 2.3.3 Fundamental Matrix Solution -- 2.3.4 Estimates of Solutions to Singularly Perturbed Matrix

Differential Systems with Delays of Two Scales -- 2.3.5 Example 5 --
 2.3.6 Example 6: Dynamics of Nuclear Reactor -- 2.3.7 Example 7:
 Analysis of Car-Following Model in a Simple Closed Lane -- 2.3.8 Proof
 of Theorem 2.2 -- 2.4 One Class of Singularly Perturbed Systems with
 Nonsmall Delays -- 2.4.1 Original System -- 2.4.2 Slow-Fast
 Decomposition of the Original System -- 2.4.3 Fundamental Matrix
 Solution -- 2.4.4 Estimates of Solutions to Singularly Perturbed Matrix
 Differential Systems with Nonsmall Delays -- 2.4.5 Example 8 -- 2.4.6
 Proof of Lemma 2.4 -- 2.4.7 Proof of Theorem 2.4 -- 2.5 Concluding
 Remarks and Literature Review.
 References -- 3 Euclidean Space Output Controllability of Linear
 Systems with State Delays -- 3.1 Introduction -- 3.2 Systems with
 Small Delays: Main Notions and Definitions -- 3.2.1 Original System --
 3.2.2 Asymptotic Decomposition of the Original System -- 3.3 Auxiliary
 Results -- 3.3.1 Output Controllability of a System with State Delays:
 Necessary and Sufficient Conditions -- 3.3.2 Linear Control
 Transformation in Systems with Small Delays -- 3.3.2.1 Control
 Transformation in the Original System -- 3.3.2.2 Asymptotic
 Decomposition of the Transformed System (3.30)-(3.31), (3.3) -- 3.3.3
 Hybrid Set of Riccati-Type Matrix Equations -- 3.3.4 Proof of Lemma
 3.1 -- 3.3.4.1 Sufficiency -- 3.3.4.2 Necessity -- 3.3.5 Proof of Lemma
 3.5 -- 3.3.6 Proof of Lemma 3.7 -- 3.3.7 Proof of Lemma 3.8 -- 3.3.8
 Proof of Lemma 3.9 -- 3.4 Parameter-Free Controllability Conditions
 for Systems with Small Delays -- 3.4.1 Case of the Standard System
 (3.1)-(3.2) -- 3.4.2 Case of the Nonstandard System (3.1)-(3.2) --
 3.4.3 Proofs of Theorems 3.1, 3.2, and 3.3 -- 3.4.3.1 Proof of Theorem
 3.1 -- 3.4.3.2 Proof of Theorem 3.2 -- 3.4.3.3 Proof of Theorem 3.3
 -- 3.5 Special Cases of Controllability for Systems with Small Delays --
 3.5.1 Complete Euclidean Space Controllability -- 3.5.2 Controllability
 with Respect to $x(t)$ -- 3.5.3 Controllability with Respect to $y(t)$ -- 3.6
 Examples: Systems with Small Delays -- 3.6.1 Example 1 -- 3.6.2
 Example 2 -- 3.6.3 Example 3 -- 3.6.4 Example 4 -- 3.6.5 Example 5
 -- 3.6.6 Example 6: Pursuit-Evasion Engagement with Constant Speeds
 of Participants -- 3.6.7 Example 7: Pursuit-Evasion Engagement with
 Variable Speeds of Participants -- 3.6.8 Example 8: Analysis of
 Controlled Coupled-Core Nuclear Reactor Model -- 3.7 Systems with
 Delays of Two Scales: Main Notions and Definitions -- 3.7.1 Original
 System.
 3.7.2 Asymptotic Decomposition of the Original System -- 3.8 Linear
 Control Transformation in Systems with Delays of Two Scales -- 3.8.1
 Control Transformation in the Original System -- 3.8.2 Asymptotic
 Decomposition of the Transformed System (3.196)-(3.197), (3.187) --
 3.9 Parameter-Free Controllability Conditions for Systems with Delays
 of Two Scales -- 3.9.1 Case of the Validity of the Assumption (AIII) --
 3.9.2 Case of the Validity of the Assumption (AIV) -- 3.9.3 Special
 Cases of Controllability -- 3.9.3.1 Complete Euclidean Space
 Controllability -- 3.9.3.2 Controllability with Respect to $x(t)$ -- 3.9.3.3
 Controllability with Respect to $y(t)$ -- 3.9.4 Example 9 -- 3.9.5 Example
 10 -- 3.9.6 Example 11: Controlled Car-Following Model in a Simple
 Open Lane -- 3.10 Concluding Remarks and Literature Review --
 References -- 4 Complete Euclidean Space Controllability of Linear
 Systems with State and Control Delays -- 4.1 Introduction -- 4.2
 System with Small State Delays: Main Notions and Definitions -- 4.2.1
 Original System -- 4.2.2 Asymptotic Decomposition of the Original
 System -- 4.3 Preliminary Results -- 4.3.1 Auxiliary System with Small
 State Delays and Delay-Free Control -- 4.3.2 Output Controllability of
 the Auxiliary System and Its Slow and Fast Subsystems: Necessary and
 Sufficient Conditions -- 4.3.2.1 Equivalent Forms of the Auxiliary

System -- 4.3.2.2 Output Controllability of the Auxiliary System --
 4.3.2.3 Output Controllability of the Slow and Fast Subsystems
 Associated with the Auxiliary System -- 4.3.3 Linear Control
 Transformation in the Original System with Small State Delays -- 4.3.4
 Stabilizability of a Parameter-Dependent System with State and Control
 Delays by a Memory-Less Feedback Control -- 4.3.5 Proof of Lemma
 4.8 -- 4.4 Parameter-Free Controllability Conditions for Systems with
 Small State Delays.
 4.4.1 Case of the Standard System (4.1)-(4.2) -- 4.4.2 Case of the
 Nonstandard System (4.1)-(4.2) -- 4.4.3 Proof of Main Lemma (Lemma
 4.9) -- 4.4.3.1 Auxiliary Propositions -- 4.4.3.2 Main Part of the Proof
 -- 4.4.4 Alternative Approach to Controllability Analysis of the
 Nonstandard System (4.1)-(4.2) -- 4.4.4.1 Linear Control
 Transformation in the Auxiliary System (4.40)-(4.42) -- 4.4.4.2 Proof
 of Lemma 4.10 -- 4.4.4.3 Hybrid Set of Riccati-Type Matrix Equations
 -- 4.4.4.4 Parameter-Free Controllability Conditions of the
 Nonstandard System (4.1)-(4.2) -- 4.5 Examples: Systems with Small
 State and Control Delays -- 4.5.1 Example 1 -- 4.5.2 Example 2 --
 4.5.3 Example 3 -- 4.6 Systems with State Delays of Two Scales: Main
 Notions and Definitions -- 4.6.1 Original System -- 4.6.2 Asymptotic
 Decomposition of the Original System -- 4.7 Auxiliary System with
 State Delays of Two Scales and Delay-Free Control -- 4.7.1 Description
 of the Auxiliary System and Some of Its Properties -- 4.7.2 Asymptotic
 Decomposition of the Auxiliary System (4.180)-(4.181) -- 4.7.3 Linear
 Control Transformation in the Auxiliary System (4.180)-(4.181) -- 4.8
 Parameter-Free Controllability Conditions for Systems with Delays of
 Two Scales -- 4.8.1 Case of the Validity of the Assumption (AV) --
 4.8.2 Case of the Validity of the Assumption (AVI) -- 4.8.3 Example 4
 -- 4.8.4 Example 5 -- 4.8.5 Example 6: Analysis of Car-Following
 Model with State and Control Delays -- 4.9 Concluding Remarks and
 Literature Review -- References -- 5 First-Order Euclidean Space
 Controllability Conditions for Linear Systems with Small State Delays --
 5.1 Introduction -- 5.2 Singularly Perturbed System: Main Notions and
 Definitions -- 5.2.1 Original System -- 5.2.2 Asymptotic
 Decomposition of the Original System -- 5.3 Auxiliary Results.
 5.3.1 Estimates of Solutions to Some Singularly Perturbed Linear Time
 Delay Matrix Differential Equations -- 5.3.2 Proof of Lemma 5.1 --
 5.3.2.1 Technical Proposition -- 5.3.2.2 Main Part of the Proof -- 5.3.3
 Complete Controllability of the Original System and Its Slow Subsystem:
 Necessary and Sufficient Conditions -- 5.4 Parameter-Free
 Controllability Conditions -- 5.4.1 Formulation of Main Assertions --
 5.4.2 Proof of Theorem 5.1 -- 5.4.3 Proof of Lemma 5.2 -- 5.4.4 Proof
 of Theorem 5.2 -- 5.4.4.1 Euclidean Space Controllability of a Pure Fast
 System -- 5.4.4.2 Main Part of the Proof -- 5.5 Examples -- 5.5.1
 Example 1 -- 5.5.2 Example 2 -- 5.5.3 Example 3 -- 5.5.4 Example 4
 -- 5.5.5 Example 5 -- 5.5.6 Example 6 -- 5.5.7 Example 7: Analysis of
 Controlled Car-Following Model in a Simple Open Lane -- 5.6
 Concluding Remarks and Literature Review -- References -- 6
 Miscellanies -- 6.1 Introduction -- 6.2 Euclidean Space Controllability
 of Linear Time Delay Systems with High Gain Control -- 6.2.1 High
 Gain Control System: Main Notions and Definitions -- 6.2.1.1 Initial
 System -- 6.2.1.2 Transformation of the System (6.1) -- 6.2.2 High
 Dimension Controllability Condition for the System (6.5) -- 6.2.3
 Asymptotic Decomposition of the System (6.5) -- 6.2.4 Auxiliary
 Results -- 6.2.4.1 Linear Control Transformation in the System (6.13)
 -(6.14) and Some of its Properties -- 6.2.4.2 Asymptotic
 Decomposition of the Transformed System (6.13), (6.21) -- 6.2.4.3
 Block-Wise Estimate of the Solution to the Terminal-Value Problem

(6.23) -- 6.2.5 Lower Dimension Parameter-Free Controllability
Condition for the System (6.5) -- 6.2.6 Example -- 6.3 Euclidean Space
Controllability of Linear Systems with Nonsmall Input Delay -- 6.3.1
Original System -- 6.3.2 Discussion on the Slow-Fast Decomposition of
the Original System -- 6.3.3 Auxiliary Results.
6.3.3.1 Necessary and Sufficient Controllability Conditions of the
Original System.
