



axioms

IMPACT
FACTOR
2.0

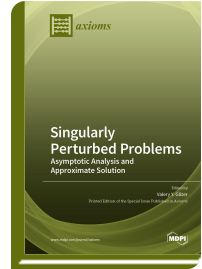
Special Issue Reprint

Singularly Perturbed Problems: Asymptotic Analysis and Approximate Solution

www.mdpi.com/books/reprint/6508

Edited by
Valery Y. Glizer

ISBN 978-3-0365-6029-8 (Hardback)
ISBN 978-3-0365-6030-4 (PDF)



This book collects papers from the Special Issue "Singularly Perturbed Problems: Asymptotic Analysis and Approximate Solution", published in Axioms. These papers cover different aspects of singular perturbation theory and its applications: axiomatic approach in the analytic theory of singular perturbations; asymptotic solution of various types of singularly perturbed integral–differential and integral equations with weakly and rapidly varying kernels of the integral operators; propagation of two-dimensional periodic perturbations in a viscous continuously stratified fluid; asymptotic analysis of the stochastic linear–quadratic optimal control problem with two fast timescales in the dynamics; asymptotic solution of singularly perturbed Cauchy problem for different types of differential equations with "simple" turning points; asymptotic analysis of the complete Euclidean space controllability for different types of singularly perturbed differential systems with time delays; asymptotic solution of singularly perturbed systems in the critical case by the orthogonal projector method; application of the direct scheme method to asymptotic solution of one class of optimal control problems with three-tempo state variables; asymptotic analysis and solution of a cheap control linear quadratic zero-sum differential game; analysis of asymptotic behavior of the solutions for one class of singularly perturbed Neumann boundary value problems.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6508

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.