Read Book Handbook Of Hydraulics For The Solution Of Hydraulic Engineering Problems 6th Edition By Brater Ernest Frederick Published By Mcgraw Hill Tx Hardcover Pdf File Free

The Matrix Analysis of Vibration Dec 22 2019 Vibration problems arise in the design of almost all engineering machinery and structures. Many of these problems are extremely complex but their solution is essential if a safe and satisfactory design is to be achieved. The equations of motion are often insoluble by the classical methods of the calculus and so it is necessary to approximate on order to reduce them to a set of linear equations. The use of matrices simplifies the solution of sets of linear equations. This book describes the matrix formulation of the equations of motion and techniques for the solution of matrix equations. The book describes some typical computer methods and also includes a large number of problems (with solutions) which may conveniently be solved by using a desk calculating machine.

Ill-Posed Problems: Theory and Applications Jun 08 2021 Recent years have been characterized by the increasing amountofpublications in the field ofso-called ill-posed problems. This is easilyunderstandable because we observe the rapid progress of a relatively young branch ofmathematics, ofwhich the first results date back to about 30 years ago. By now, impressive results have been achieved both in the theory ofsolving ill-posed problems and in the applicationsofalgorithms using modem computers. To mention just one field, one can name the computer tomography which could not possibly have been developed without modem tools for solving ill-posed problems. When writing this book, the authors tried to define the place and role of ill posed problems in modem mathematics. In a few words, we define the theory of ill-posed problems as the theory of approximating functions with approximately given arguments in functional spaces. The difference between well-posed and ill posed problems is concerned with the fact that the latter are associated with discontinuous functions. This approach is followed by the authors throughout the whole book. We hope that the theoretical results will be of interest to researchers working in approximation theory and functional analysis. As for particular algorithms for solving ill-posed problems, the authors paid general attention to the principles ofconstructing such algorithms as the methods for approximating discontinuous functions with approximately specified arguments. In this way it proved possible to define the limits of applicability of regularization techniques.

Recent Developments in the Solution of Nonlinear Differential Equations Mar 05 2021 Nonlinear differential equations are ubiquitous in computational science and engineering modeling, fluid dynamics, finance, and quantum mechanics, among other areas. Nowadays, solving challenging problems in an industrial setting requires a continuous interplay between the theory of such systems and the development and use of sophisticated computational methods that can guide and support the theoretical findings via practical computer simulations. Owing to the impressive development in computer technology and the introduction of fast numerical methods with reduced algorithmic and memory complexity, rigorous solutions in many applications have become possible. This book collects research papers from leading world experts in the field, highlighting ongoing trends, progress, and open problems in this critically important area of mathematics.

Handbook of Water Control Oct 20 2019

The Method of Fractional Steps Sep 30 2020 The method of. fractional steps, known familiarly as the method oi splitting, is a remarkable technique, developed by N. N. Yanenko and his collaborators, for solving problems in theoretical mechanics numerically. It is applicable especially to potential problems, problems of elasticity and problems of fluid dynamics. Most of the applications at the present time have been to incompressible flow with free bound aries and to viscous flow at low speeds. The method offers a powerful means of solving the Navier-Stokes equations and the results produced so far cover a range of Reynolds numbers far greater than that attained in earlier methods. Further development of the method should lead to complete numerical solutions of many of the boundary layer and wake problems which at present defy satisfactory treatment. As noted by the author very few applications of the method have yet been made to problems in solid mechanics and prospects for answers both in this field and other areas such as heat transfer are encouraging. As the method is perfected it is likely to supplant traditional relaxation methods and finite element methods, especially with the increase in capability of large scale computers. The literal translation was carried out by T. Cheron with financial support of the Northrop Corporation. The editing of the translation was undertaken in collaboration with N. N. Yanenko and it is a plea sure to acknowledge his patient help and advice in this project. The edited manuscript was typed, for the most part, by Mrs.

Qualitative Differences in the Solution of a Problem Involving Reasoning May 19 2022

Numerical Solution of Integral Equations Jan 15 2022 In 1979, I edited Volume 18 in this series: Solution Methods for Integral Equations: Theory and Applications. Since that time, there has been an explosive growth in all aspects of the numerical solution of integral equations. By my estimate over 2000 papers on this subject have been published in the last decade, and more than 60 books on theory and applications have appeared. In particular, as can be seen in many of the chapters in this book, integral equation techniques are playing an increas ingly important role in the solution of many scientific and engineering problems. For instance, the boundary element method discussed by Atkinson in Chapter 1 is becoming an equal partner with finite element and finite difference techniques for solving many types of partial differential equations. Obviously, in one volume it would be impossible to present a complete picture of what has taken place in this area during the past ten years. Consequently, we have chosen a number of subjects in which significant advances have been made that we feel have not been covered in depth in other books. For instance, ten years ago the theory of the numerical solution of Cauchy singular equations was in its infancy. Today, as shown by Golberg and Elliott in Chapters 5 and 6, the theory of polynomial approximations is essentially complete, although many details of practical implementation remain to be worked out.

The Smart Solution Book Dec 14 2021 THE MOST COMPREHENSIVE COLLECTION OF PROBLEM-SOLVING TOOLS, GAMES AND TECHNIQUES USED BY BRAINSTORMERS, GAMECHANGERS AND TRAILBLAZERS. As working life becomes more complex, we are increasingly faced with problems which may at first seem insoluble. The Smart Solution Book is your guide to solving these problems, whatever their size. The Smart Solution Book explains each tool in detail – what it is, when and how to use it, its strengths and its limitations. The tools range from quick fixes, which can be used by someone working alone, to large scale solutions which can be used by groups of 100 and more. You can also use the tools separately or in combination with each other. • Frame problems so they can be solved • Find a solution to even the most intractable problem • Enjoy the process of problem solving, whether alone or in collaboration with others • Become more creative in your thinking so that, over time, solutions begin to present themselves The Smart Solution Book will change your way of thinking about business problems: apply the techniques and see the solutions unfold. “The essential guide for any problem solving situation. Effective, practical and very accessible. Highly recommended.” Chris Garthwaite, CEO CGA Consulting "There isn't a single individual or organisation that could fail to benefit from the many practical approaches to problem-solving in this

book. Everyone should read it!” Andrew Hilton, Managing Director, Corporate Training Partnerships Ltd “F. Durrenmatt says 'What concerns everyone, can only be solved by everyone' - and David's book is the practical guide to getting everyone fully engaged with a creative technique to solve any of your challenges.” Peter Schwanh™ußer, Partner, papilio ag, Zurich

Iterative Methods for the Solution of Equations Oct 24 2022 From the Preface (1964): ``This book presents a general theory of iteration algorithms for the numerical solution of equations and systems of equations. The relationship between the quantity and the quality of information used by an algorithm and the efficiency of the algorithm is investigated. Iteration functions are divided into four classes depending on whether they use new information at one or at several points and whether or not they reuse old information. Known iteration functions are systematized and new classes of computationally effective iteration functions are introduced. Our interest in the efficient use of information is influenced by the widespread use of computing machines ... The mathematical foundations of our subject are treated with rigor, but rigor in itself is not the main object. Some of the material is of wider application ... Most of the material is new and unpublished. Every attempt has been made to keep the subject in proper historical perspective ... ''

A Mathematical Solution Book Containing Systematic Solutions of Many of the Most Difficult Problems Aug 30 2020

The Solution Book: 101 Techniques for Successful Ideation and Problem Solving Aug 22 2022 CB Insights study suggests that 42% of startups fail because they do not identify the right need, in other words: there is no need for the startup or product in the first place. The issue here is the lack of tools used to generate the ideas and validate those. Bottom line, this issue is about a structured approach to idea generation and problem-solving. Do you know that most people engaged in collective problem solving spend a lot of their valuable time in meetings, discussing ideas, which they think eventually do not add value to product or startup? Harvard Business Review survey suggests that 71% of managers feel that meetings do not help accomplish much, as they do not have specific templates and exercises to guide specific outcomes with engagement from participants. THE SOLUTION BOOK is going to help you in experimenting with ideas effectively by providing you steps on how to create a framework for coming up with new ideas and products, considering a variety of views, develop teamwork and collaboration keeping you better focused on your results and outcomes. The solution book consists of 101 easy to follow techniques on problem-solving and ideation. Startup, innovation and venture failures are expensive and justified only by lack of tools and data for analysis. The book caters to all stages in your lifecycle as a creative thinker and problem solver with tools to optimize your resources, go beyond conventional solutions and experiment with divergent (out of the box) thinking thanks to Elina Kallas, a researcher on entrepreneurship education with European Commission and in entrepreneurship at Harvard University, and Vidyangi Patil, an interdisciplinary professional of Biomedical Engineering with an extensive startup and research experience.

Laplace Transform Solution of Differential Equations Nov 20 2019

The Numerical Solution of Systems of Polynomials Arising in Engineering and Science Apr 18 2022 ' Written by the founders of the new and expanding field of numerical algebraic geometry, this is the first book that uses an algebraic-geometric approach to the numerical solution of polynomial systems and also the first one to treat numerical methods for finding positive dimensional solution sets. The text covers the full theory from methods developed for isolated solutions in the 1980's to the most recent research on positive dimensional sets.

Contents:Background:Polynomial SystemsHomotopy ContinuationProjective SpacesGenericity and Probability OnePolynomials of One VariableOther MethodsIsolated Solutions:Coefficient-Parameter HomotopyPolynomial StructuresCase StudiesEndpoint EstimationChecking Results and Other Implementation TipsPositive Dimensional Solutions:Basic Algebraic GeometryBasic Numerical Algebraic GeometryA Cascade Algorithm for Witness SupersetsThe Numerical Irreducible DecompositionThe Intersection of Algebraic

SetsAppendices:Algebraic GeometrySoftware for Polynomial ContinuationHomLab User's Guide Readership: Graduate students and researchers in applied mathematics and mechanical engineering. Keywords:Polynomial Systems;Numerical Methods;Homotopy Methods;Mechanical Engineering;Numerical Algebraic Geometry;Kinematics;RoboticsKey Features:Useful introduction to the field for graduate students and researchers in related areasIncludes exercises suitable for classroom use and self-studyIncludes Matlab software to illustrate the methodIncludes many graphical illustrationsIncludes a detailed summary of useful results from algebraic geometryReviews:“The text is written in a very smooth and intelligent form, yielding a readable book whose contents are accessible to a wide class of readers, even to undergraduate students, provided that they accept that some delicate points of some of the proofs could be omitted. Its readability and fast access to the core of the book makes it recommendable as a pleasant read.”Mathematical Reviews “This is an excellent book on numerical solutions of polynomials systems for engineers, scientists and numerical analysts. As pioneers of the field of numerical algebraic geometry, the authors have provided a comprehensive summary of ideas, methods, problems of numerical algebraic geometry and applications to solving polynomial systems. Through the book readers will experience the authors' original ideas, contributions and their techniques in handling practical problems … Many interesting examples from engineering and science have been used throughout the book. Also the exercises are well designed in line with the content, along with the algorithms, sample programs in Matlab and author's own software 'HOMLAB' for polynomial continuation. This is a remarkable book that I recommend to engineers, scientists, researchers, professionals and students, and particularly numerical analysts who will benefit from the rapid development of numerical algebraic geometry.”Zentralblatt MATH '

Time-parallel Methods for Accelerating the Solution of Structural Dynamics Problems Sep 23 2022 The classical approach for solving evolution Partial Differential Equations (PDEs) using a parallel computer consists in first partitioning the spatial domain and assigning each subdomain to a processor to achieve space-parallelism, then advancing the solution sequentially. However, enabling parallelism along the time dimension, despite its intrinsic difficulty, can be of paramount importance to fast computations when space-parallelism is unfeasible, cannot fully exploit a massively parallel machine or when near-real-time prediction is desired. The aforementioned objective can be achieved by applying classical domain decomposition principles to the time axis. The latter is first partitioned into time-slices to be processed independently. Starting with approximate seed information that provides a set of initial conditions, the response is then advanced in parallel in each time-slice using a standard time-stepping integrator. This decomposed solution exhibits discontinuities or jumps at the time-slice boundaries if the initial guess is not accurate. Applying a Newton-like approach to the time-dependent system, a correction function is then computed to improve the accuracy of the seed values and the process is repeated until convergence is reached. Methods based on the above concept have been successfully applied to various problems but none was found to be competitive for even for the simplest of second-order hyperbolic PDEs, a class of equations that covers the field of structural dynamics among others. To overcome this difficulty, a key idea is to improve the sequential propagator used for correcting the seed values, observing that the original evolution problem and the derived corrective one are closely related. The present work first demonstrates how this insight can be brought to fruition in the context of linear oscillators, with numerical examples featuring structural models ranging from academic to more challenging large-scale ones. An extension of this method to nonlinear equations is then developed and its concrete application to geometrically nonlinear transient dynamics is presented. Finally, it is shown how the time-reversibility property that characterizes some of the above problems can be exploited to develop a new framework that provides an increased speed-up factor.

Almost Global Solutions of Capillary-Gravity Water Waves Equations on the Circle Oct 12 2021 The goal of this monograph is to prove that any

solution of the Cauchy problem for the capillary-gravity water waves equations, in one space dimension, with periodic, even in space, small and smooth enough initial data, is almost globally defined in time on Sobolev spaces, provided the gravity-capillarity parameters are taken outside an exceptional subset of zero measure. In contrast to the many results known for these equations on the real line, with decaying Cauchy data, one cannot make use of dispersive properties of the linear flow. Instead, a normal forms-based procedure is used, eliminating those contributions to the Sobolev energy that are of lower degree of homogeneity in the solution. Since the water waves equations form a quasi-linear system, the usual normal forms approaches would face the well-known problem of losses of derivatives in the unbounded transformations. To overcome this, after a paralinearization of the capillary-gravity water waves equations, we perform several paradifferential reductions to obtain a diagonal system with constant coefficient symbols, up to smoothing remainders. Then we start with a normal form procedure where the small divisors are compensated by the previous paradifferential regularization. The reversible structure of the water waves equations, and the fact that we seek solutions even in space, guarantees a key cancellation which prevents the growth of the Sobolev norms of the solutions.

Differential Equation Solutions with MATLAB® Mar 25 2020 This book focuses the solutions of differential equations with MATLAB. Analytical solutions of differential equations are explored first, followed by the numerical solutions of different types of ordinary differential equations (ODEs), as well as the universal block diagram based schemes for ODEs. Boundary value ODEs, fractional-order ODEs and partial differential equations are also discussed.

Numerical Analysis of Systems of Ordinary and Stochastic Differential Equations Jul 09 2021 This book deals with numerical analysis of systems of both ordinary and stochastic differential equations. The first chapter is devoted to numerical solution problems of the Cauchy problem for stiff ordinary differential equation (ODE) systems by Rosenbrock-type methods (RTMs). Here, general solutions of consistency equations are obtained, which lead to the construction of RTMs from the first to the fourth order. The second chapter deals with statistical simulation problems of the solution of the Cauchy problem for stochastic differential equation (SDE) systems. The mean-square convergence theorem is considered, as well as Taylor expansions of numerical solutions. Also included are applications of numerical methods of SDE solutions to partial differential equations and to analysis and synthesis problems of automated control of stochastic systems.

Automated Solution of Differential Equations by the Finite Element Method Aug 18 2019 This book is a tutorial written by researchers and developers behind the FEniCS Project and explores an advanced, expressive approach to the development of mathematical software. The presentation spans mathematical background, software design and the use of FEniCS in applications. Theoretical aspects are complemented with computer code which is available as free/open source software. The book begins with a special introductory tutorial for beginners. Following are chapters in Part I addressing fundamental aspects of the approach to automating the creation of finite element solvers. Chapters in Part II address the design and implementation of the FEnicS software. Chapters in Part III present the application of FEniCS to a wide range of applications, including fluid flow, solid mechanics, electromagnetics and geophysics.

Stochastic Partial Differential Equations, Second Edition Jun 27 2020 Explore Theory and Techniques to Solve Physical, Biological, and Financial Problems Since the first edition was published, there has been a surge of interest in stochastic partial differential equations (PDEs) driven by the Lévy type of noise. Stochastic Partial Differential Equations, Second Edition incorporates these recent developments and improves the presentation of material. New to the Second Edition Two sections on the Lévy type of stochastic integrals and the related stochastic differential equations in finite dimensions Discussions of Poisson random fields and related stochastic integrals, the solution of a stochastic heat equation with Poisson noise, and mild solutions to linear and nonlinear parabolic equations with Poisson noises Two sections on

linear and semilinear wave equations driven by the Poisson type of noises Treatment of the Poisson stochastic integral in a Hilbert space and mild solutions of stochastic evolutions with Poisson noises Revised proofs and new theorems, such as explosive solutions of stochastic reaction diffusion equations Additional applications of stochastic PDEs to population biology and finance Updated section on parabolic equations and related elliptic problems in Gauss–Sobolev spaces The book covers basic theory as well as computational and analytical techniques to solve physical, biological, and financial problems. It first presents classical concrete problems before proceeding to a unified theory of stochastic evolution equations and describing applications, such as turbulence in fluid dynamics, a spatial population growth model in a random environment, and a stochastic model in bond market theory. The author also explores the connection of stochastic PDEs to infinite-dimensional stochastic analysis.

A Proof of Existence of Particle-like Solutions of Einstein Dirac Equations Jan 23 2020

On the Stability of Piecewise Linear Wavelet Collocation and the Solution of the Double Layer Equation Over Polygonal Curves Sep 18 2019

The Solution of Equations in Integers Jan 03 2021 Covering applications to physics and engineering as well, this relatively elementary discussion of algebraic equations with integral coefficients and with more than one unknown will appeal to students and mathematicians from high school level onward. 1961 edition.

Differential Equations Feb 04 2021 This book provides an introduction to the theory and application of the solution of differential equations using symmetries, a technique of great value in mathematics and the physical sciences. In many branches of physics, mathematics, and engineering, solving a problem means a set of ordinary or partial differential equations. Nearly all methods of constructing closed form solutions rely on symmetries. The theory and application of such methods have therefore attracted increasing attention in the last two decades. In this text the emphasis is on how to find and use the symmetries in different cases. Many examples are discussed, and the book includes more than 100 exercises. This book will form an introduction accessible to beginning graduate students in physics, applied mathematics, and engineering. Advanced graduate students and researchers in these disciplines will find the book an invaluable reference.

You Are the Solution Apr 06 2021 This book is a call to action for empowerment, a guide for those no longer willing to be spectators in a society desperate for change. Whether you're building a business or looking to improve your professional or social relationships, this book will equip you with the entrepreneurial mindset necessary to do so.

The Solution of a System of Linear Differential Equations with a Regular Singular Point Jun 20 2022 Excerpt from The Solution of a System of Linear Differential Equations With a Regular Singular Point: A Thesis The present paper deals with the problem of finding fundamental sets or solutions for ayatm of linear differ ential equations which have a regular singular point. A Mammal set 13 a set of solutions such that; every soma tion or the system can be expreaaed as a linear ombimtion of the elements or that: sets. Any 381: of a linearly indepen dent solutions forms a fundamental not. A singular point; is called regular if the Laurent expansion of the solutions about that point contaim a finite number of terms with negative exponents. The problem was first: 801m by Hem about 1891. Tho first direct treatment was given by J. A. War in 1929. The methods employed in this paper are essentially those used by Nyawandor. For the sake of simplicity the umber of 69pm dent: variables, and hence the number of equations, is limited to two. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical

works.

Development and Evaluation of Numerical Schemes for the Solution of Convection-diffusion Problems Feb 16 2022

Random measures as the solution of the cable equation with white noise disturbance Aug 10 2021

Solutions Manual for Techniques of Problem Solving Sep 11 2021 This manual contains solutions to most of the exercises in the book Techniques of Problem Solving by Steven G. Krantz. It is essential that this manual be used only as a reference, and never as a way to learn how to solve the exercises. It is strongly ecouraged never to look up the solution of any exercise before attempting to solve it. The 'attempt time' will alwayas be as rewarding to the student-or maybe more-as solving the exercise itself.

The Solution of Laminar Boundary Layer Equations by the Finite Differnce Method Mar 17 2022

The Fast Solution of Boundary Integral Equations Feb 22 2020 This book provides a detailed description of fast boundary element methods, all based on rigorous mathematical analysis. In particular, the authors use a symmetric formulation of boundary integral equations as well as discussing Galerkin discretisation. All the necessary related stability and error estimates are derived. The authors therefore describe the Adaptive Cross Approximation Algorithm, starting from the basic ideas and proceeding to their practical realization. Numerous examples representing standard problems are given.

Lectures on the Icosahedron and the Solution of Equations of the Fifth Degree Dec 26 2022 This well-known work covers the solution of quintics in terms of the rotations of a regular icosahedron around the axes of its symmetry. Its two-part presentation begins with discussions of the theory of the icosahedron itself; regular solids and theory of groups; introductions of (x + iy); a statement and examination of the fundamental problem, with a view of its algebraic character; and general theorems and a survey of the subject. The second part explores the theory of equations of the fifth degree and their historical development; introduces geometrical material; and covers canonical equations of the fifth degree, the problem of A's and Jacobian equations of the sixth degree, and the general equation of the fifth degree. Second revised edition with additional corrections.

A Note on the Relation Between Entropy and Enthalpy of Solution May 27 2020

The Solution of the Laminar-boundary-layer Equation for the Flat Plate for Velocity and Temperature Fields for Variable Physical Properties and for the Diffusion Field at High Concentration Jul 21 2022 In connection with Pohlhausen's solution for the temperature field on the flat plate, a series of formulas were indicated by means of which the velocity and temperature field for variable physical characteristics can be computed by an integral equation and an iteration method based on it. With it, the following cases were solved: On the assumption that the viscosity simply varies with the temperature while the other fluid properties remain constant, the velocity and temperature field on the heated and cooled plate, respectively, was computed at the Prandtl numbers 12.5 and 100 (viscous fluids). A closer study of these two cases resulted in general relations: The calculations for a gas of Pr number 0.7 (air) were conducted on the assumption that all fluid properties vary with the temperature, and the velocities are low enough for the heat of friction to be discounted. The result was a thickening of the boundary layers, but no appreciable modification in shearing stress or heat-transfer coefficient.

Elements of the Integral Calculus Nov 01 2020 This work has been selected by scholars as being culturally important, and is part of the knowledge base of civilization as we know it. This work is in the "public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.

Lectures on the Ikosahedron and the Solution of Equations of the Fifth Degree Jul 29 2020 This work has been selected by scholars as being culturally important and is part of the knowledge base of civilization as we know it. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. To ensure a quality reading experience, this work has been proofread and republished using a format that seamlessly blends the original graphical elements with text in an easy-to-read typeface. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.

Affine Arithmetic Based Solution of Uncertain Static and Dynamic Problems Nov 13 2021 Uncertainty is an inseparable component of almost every measurement and occurrence when dealing with real-world problems. Finding solutions to real-life problems in an uncertain environment is a difficult and challenging task. As such, this book addresses the solution of uncertain static and dynamic problems based on affine arithmetic approaches. Affine arithmetic is one of the recent developments designed to handle such uncertainties in a different manner which may be useful for overcoming the dependency problem and may compute better enclosures of the solutions. Further, uncertain static and dynamic problems turn into interval and/or fuzzy linear/nonlinear systems of equations and eigenvalue problems, respectively. Accordingly, this book includes newly developed efficient methods to handle the said problems based on the affine and interval/fuzzy approach. Various illustrative examples concerning static and dynamic problems of structures have been investigated in order to show the reliability and efficacy of the developed approaches.

On a Source-sink Method for the Solution of the Prandtl-Busemann Iteration Equations in Two-dimensional Compressible Flow May 07 2021 The recently derived particular integrals of the Prandtl-Busemann iteration equations make possible the extension of the familiar source-siink concept to the solution of the higher-order iteration equations for the subsonic potential flow over thin symmetric two-dimensional profiles. An explicity expression is derived for the second-order velocity potential and velocity components and a method for obtaining the higher-order terms is indicated. The velocity at the surface of the Kaplan bump is evaluated to illustrate the method.

Elements of the Integral Calculus Nov 25 2022

Conference on the Numerical Solution of Differential Equations Apr 25 2020

The Numerical Solution of Two-point Boundary Problems in Ordinary Differential Equations Dec 02 2020