

Schetz Boundary Layer Analysis Manual

Boundary Layer Analysis Branch Line Video Fundamentals of Fluid Mechanics John Wiley & Sons

Government Reports Announcements & Index

Surface-Water Hydrology

The British National Bibliography

Aeronautical Engineering

Forthcoming Books

A selection of annotated references to unclassified reports and journal articles that were introduced into the NASA scientific and technical information system and announced in Scientific and technical aerospace reports (STAR) and International aerospace abstracts (IAA)

January 12-15, 1998, Reno, NV.

Introduction to Aircraft Flight Mechanics

Peterson's Annual Guides to Graduate Study

36th Aerospace Sciences Meeting & Exhibit

June 24-26, 2002, St. Louis, Mo

This book is a self-contained text for those students and readers interested in learning hypersonic flow and high-temperature gas dynamics. It assumes no prior familiarity with either subject on the part of the reader. If you have never studied hypersonic and/or high-temperature gas dynamics before, and if you have never worked extensively in the area, then this book is for you. On the other hand, if you have worked and/or are working in these areas, and you want a cohesive presentation of the fundamentals, a development of important theory and techniques, a discussion of the salient results with emphasis on the physical aspects, and a presentation of modern thinking in these areas, then this book is also for you. In other words, this book is designed for two roles: 1) as an effective classroom text that can be used with ease by the instructor, and understood with ease by the student; and 2) as a viable, professional working tool for engineers, scientists, and managers who have any contact in their jobs with hypersonic and/or high-temperature flow.

NASA Contractor Report

Aeronautical Engineering: A Cumulative Index to a Continuing Bibliography (supplement 312)

Scientific and Technical Books and Serials in Print

AIAA Journal

Dissertation Abstracts International

Basic fluid dynamic theory and applications in a single, authoritative reference The growing capabilities of computational fluid dynamics and the development of laser velocimeters and other new instrumentation have made a thorough understanding of classic fluid theory and laws more critical today than ever before. Fundamentals of Fluid Mechanics is a vital repository of essential information on this crucial subject. It brings together the contributions of recognized experts from around the world to cover all of the concepts of classical fluid mechanics-from the basic properties of liquids through thermodynamics, flow theory, and gas dynamics. With answers for the practicing engineer and real-world insights for the student, it includes applications from the mechanical, civil, aerospace, chemical, and other fields. Whether used as a refresher or for first-time learning, Fundamentals of Fluid Mechanics is an important new asset for engineers and students in many different disciplines.

1989-90

Cumulative Index, 1976-1980

Principles, Data, Design and Applications

Graduate Programs in Engineering and Applied Sciences 1984

Through ten editions, Fox and McDonald's Introduction to Fluid Mechanics has helped students understand the physical concepts, basic principles, and analysis methods of fluid mechanics. This manual provides a balanced, systematic approach to mastering critical concepts with the proven Fox-McDonald solution methodology. In-depth yet accessible chapters present governing equations, clearly relate mathematical results to corresponding physical behavior. Emphasis is placed on the use of control volumes to support a practical, theoretically-inclusive problem-solving approach to the subject. Each chapter includes numerous, easy-to-follow examples that illustrate good solution technique and explain challenging points. A broad range of carefully selected topics describe how to apply the governing equations to various problems, and explain physical concepts to enable students to model real-world fluid flow situations. Topics include flow measurement, dimensional analysis and similitude, flow in pipes, ducts, fluid machinery, and more. To enhance student learning, the book incorporates numerous pedagogical features including chapter summaries and learning objectives, end-of-chapter problems, useful and open-ended problems that encourage students to apply fluid mechanics principles to the design of devices and systems.

Library Journal

The Interaction and Penetration of Gaseous Jets in Supersonic Flow

The sciences and engineering. B

Technical Abstract Bulletin

Festschrift for Jürgen Zierep on the Occasion of his 65th Birthday

This new edition of the near-legendary textbook by Schlichting and revised by Gersten presents a comprehensive overview of boundary-layer theory and its application to all areas of fluid mechanics, with particular emphasis on the flow past bodies (e.g. aircraft aerodynamics). The new edition features an updated reference list and over 100 additional changes throughout the book, reflecting the latest advances on the subject.

Fluid- and Gasdynamics

Applied Mechanics Reviews

32nd AIAA Fluid Dynamics Conference and Exhibit

AIAA Student Journal

ERDA Energy Research Abstracts

This volume offers a wide range of theoretical, numerical and experimental research papers on fluid dynamics. The major fields of research - fundamentals of fluid mechanics as well as their applications - are treated: - stability phenomena: convective flow, thermal and hydrodynamic systems - transition, turbulence and separation: boundary-layer, turbulent combustion, rarefied gasdynamics, near wall and off wall flow fields, energy dissipation - transonic flow: homogeneous condensation, shock-waves, effects at Mach number unity - hypersonic flow: flow over spheres, aerothermodynamics, relaxation - fluid machinery: axial fans, compressor cascades, fluid couplings - computational fluid dynamics: passive shock control, zonal computation, cylinderflow, flow over wings - miscellaneous problems.

Books in Print

Monthly Catalog of United States Government Publications

Journal of Aircraft

Marine Rudders and Control Surfaces

Scientific and Technical Aerospace Reports

Kinematic wave modeling methods are gaining wide acceptance as a fast and accurate way of handling a wide range of water modeling problems. This is the first book to provide a thorough reference to the application of KW methods to such problems as the spatial representation of watersheds, overland flow routing, and channel flow routing.

Subject and author indexes

Fundamentals of Fluid Mechanics

January 11-14, 1999, Reno, NV.

Boundary Layer Analysis

Peterson's Guide to Graduate Programs in Engineering and Applied Sciences

Based on a 15-year successful approach to teaching aircraft flight mechanics at the US Air Force Academy, this text explains the concepts and derivations of equations for aircraft flight mechanics. It covers aircraft performance, static stability, aircraft dynamics stability and feedback control.

NASA SP.

A HEAT TRANSFER TEXTBOOK

Fox and McDonald's Introduction to Fluid Mechanics

37th AIAA Aerospace Sciences Meeting and Exhibit

Publications of the AIAA.

Marine Rudders and Control Surfaces guides naval architects from the first principles of the physics of control surface operation, to the use of experimental and empirical data and applied computational fluid dynamic modelling of rudders and control surfaces. The empirical and theoretical methods applied to control surface design are described in depth and their use explained through application to particular cases. The design procedures are complemented with a number of worked practical examples of rudder and control surface design. • The only text dedicated to marine control surface design • Provides experimental, theoretical and applied design information valuable for practising engineers, designers and students • Accompanied by an online extensive experimental database together with software for theoretical predictions and design development

Boundary-Layer Theory

Hypersonic and High Temperature Gas Dynamics

Whitaker's Cumulative Book List

Kinematic Wave Modeling in Water Resources