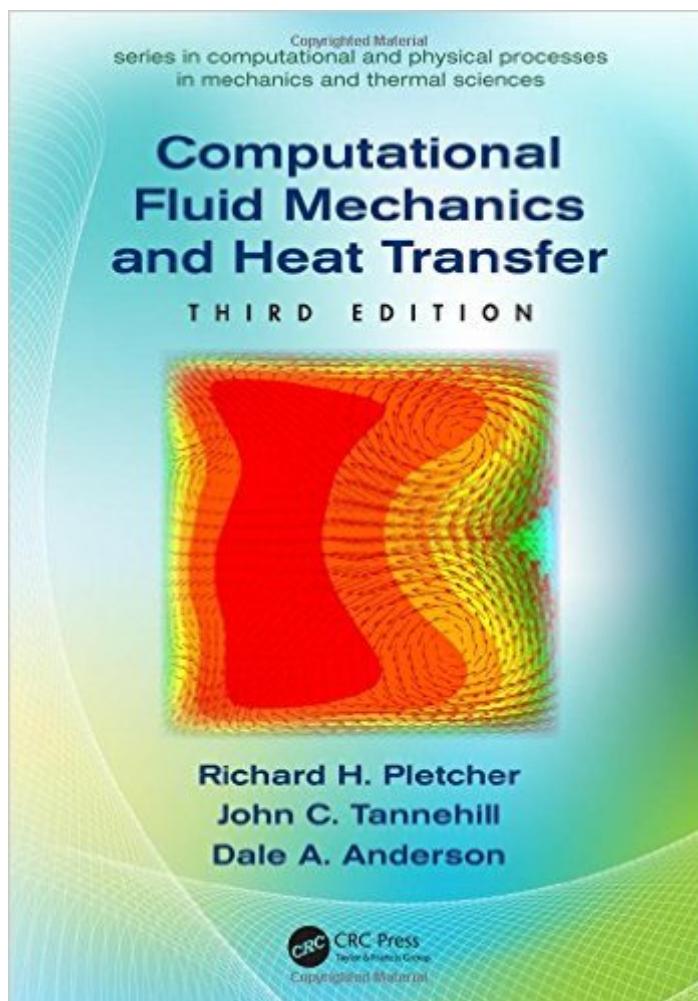


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# **Computational Fluid Mechanics And Heat Transfer, Third Edition (Series In Computational And Physical Processes In Mechanics And Thermal Sciences)**





## Synopsis

Thoroughly updated to include the latest developments in the field, this classic text on finite-difference and finite-volume computational methods maintains the fundamental concepts covered in the first edition. As an introductory text for advanced undergraduates and first-year graduate students, Computational Fluid Mechanics and Heat Transfer, Third Edition provides the background necessary for solving complex problems in fluid mechanics and heat transfer. Divided into two parts, the book first lays the groundwork for the essential concepts preceding the fluids equations in the second part. It includes expanded coverage of turbulence and large-eddy simulation (LES) and additional material included on detached-eddy simulation (DES) and direct numerical simulation (DNS). Designed as a valuable resource for practitioners and students, new homework problems have been added to further enhance the student's understanding of the fundamentals and applications.

## Book Information

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## Customer Reviews

"I have always considered this book the best gift from one generation to the next in computational fluid dynamics. I earnestly recommend this book to graduate students and practicing engineers for the pleasure of learning and a handy reference. The description of the basic concepts and fundamentals is thorough and is crystal clear for understanding. And since 1984, two newer editions have kept abreast to the new, relevant, and fully verified advancements in CFD." Joseph

J.S. Shang, Wright State University "Computational Fluid Mechanics and Heat Transfer is very well written to be used as a textbook for an introductory computational fluid dynamics course, especially for those who want to study computational aerodynamics. Most widely used finite difference and finite volume schemes for various partial differential equations of fluid dynamics and heat transfer are presented in such a way that anyone can read and understand them rather easily. In this sense, this book is also a good textbook for self-learners of CFD. In addition to the fundamental and general topics to be covered in a typical CFD textbook, chapters concerning high-speed aerodynamics in depth are also included, which is very important for computational aerodynamicists." Prof. Seung O. Park, Korea Advanced Institute of Science and Technology

For an intro or undergraduate look at CFD, this book will cover all your bases. Tends to be light in a lot of the underlying theory however. Grad students or more in-depth users might consider looking elsewhere.

great CFD reference !

Very comprehensive book. Covered the first half in a graduate level CFD course. Good basics and advanced material. My only complaint is that it doesn't seem to be typeset using LaTeX (could just be because I'm a LaTeX snob).

good

This book start with a very complex introduction to CFD. Great reference book, lot of information and fundamentals but not an introductory book.

It has a lot of writings on it and some coffee drops on some chapters.

Very good book. If you do CFD this shows the "guts" inside the black box.

Great book!

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