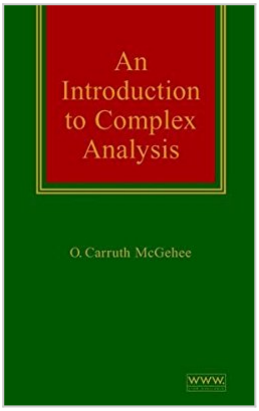

An Introduction to Complex Analysis

By O. Carruth McGehee

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Recent decades have seen profound changes in the way we understand complex analysis. This new work presents a much-needed modern treatment of the subject, incorporating the latest developments and providing a rigorous yet accessible introduction to the concepts and proofs of this fundamental branch of mathematics. With its thorough review of the prerequisites and well-balanced mix of theory and practice, this book will appeal both to readers interested in pursuing advanced topics as well as those wishing to explore the many applications of complex analysis to engineering and the physical sciences.
* Reviews the necessary calculus, bringing readers quickly up to speed on the material
* Illustrates the theory, techniques, and reasoning through the use of short proofs and many examples
* Demystifies complex versus real differentiability for functions from the plane to the plane
* Develops Cauchy's Theorem, presenting the powerful and easy-to-use winding-number version
* Contains over 100 sophisticated graphics to provide helpful examples and reinforce important concepts

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An Introduction to Complex Analysis By O. Carruth McGehee Bibliography

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- Binding: Hardcover
- 456 pages

Editorial Review

Review
“…well written ,very readable…stylish, up-to-date text…” (*The Mathematical Gazette*, July 2002)

McGehee discusses the basics of complex variables and a few applications to physics in a rigorous and understandable manner. He begins with motivation and the necessary background of the subject in chapter 1. Chapter 2 includes the fundamentals of the algebra, geometry, and calculus of complex numbers. The core topics (Cauchy's theorem and the residue calculus) of complex variable make up chapters 3 and 4. The author then applies the techniques of complex variables to various boundary value problems in chapter 5. A few of the more mathematically challenging results and their proofs are discussed in Chapter 6. McGehee includes more than 520 exercises (many with hints), nearly 100 detailed examples, and Mathematical-generated illustrations on approximately 20 percent of the pages. These features enable readers to deepen their geometric, computational, and theoretical understanding of the material. Upper-division undergraduates through professionals. (CHOICE, April 2001, Vol. 38, No. 8)

A versatile textbook offering all the material, at an appropriate level of treatment, for a first course...in complex analysis but also containing some more avanced material in the final chapter. A useful feature is that each chapter ends with not only a selection of exercises but also a "Hints on selected exercises" section. (Aslib Book Guide, May 2001, Vol 66, No 5)

"...sophisticated approach that stresses the geometry of complex mappings." (Journal of Natural Products American Mathematical Monthly, November 2001)

"...gives a solid introduction to function theory...emphasized by many pictures that help the student a lot to understand better they underlying concepts." (Zentralblatt MATH, Vol. 970, 2001/20)

"...deserves to join the list of classic texts that precede it..." (*SIAM Review*, Vol. 44, No. 1, March 2002)

"...stylish, up-to-date text...a very welcome addition to the literature." (*The Mathematical Gazette*, Vol. 86, No. 506, 2002)

From the Back Cover
Recent decades have seen profound changes in the way we understand complex analysis. This new work presents a much-needed modern treatment of the subject, incorporating the latest developments and providing a rigorous yet accessible introduction to the concepts and proofs of this fundamental branch of mathematics. With its thorough review of the prerequisites and well-balanced mix of theory and practice, this book will appeal both to readers interested in pursuing advanced topics as well as those wishing to explore the many applications of complex analysis to engineering and the physical sciences.
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Users Review

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The ability that you get from An Introduction to Complex Analysis will be the more deep you digging the information that hide inside the words the more you get enthusiastic about reading it. It does not mean that this book is hard to recognise but An Introduction to Complex Analysis giving you thrill feeling of reading. The author conveys their point in specific way that can be understood through anyone who read the item because the author of this reserve is well-known enough. This specific book also makes your current vocabulary increase well. So it is easy to understand then can go along, both in printed or e-book style are available. We highly recommend you for having this specific An Introduction to Complex Analysis instantly.

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