

ZMATH 2016e.00804

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Analysis zero.

Kilcock: Logic Press (ISBN 978-1-326-41433-7/hbk; 978-1-326-41581-5/pbk). vi, 153 p. (2015).

This book is a basic course of real and complex analysis. It is aimed to students who want to start beyond the axioms of the fields of numbers; from the natural numbers to the complex. It is addressed to second year or higher college students with a certain degree of mathematical ripeness. In the book, the basic concepts of set theory are presented, as well as the relations and functions. It begins from Peano's axioms and presents the construction of the natural numbers and from these the integers, the rational, real and complex numbers with an innovative presentation of the properties of each one of them according to the basic axioms that support them. The different conceptual and theoretical aspects are given in a non-formal way; however, it describes the inherent aspects of axiomatic set theory, such as consistency and redundancy. In the end, it will be an excellent lecture for those interested in venture into aspects of the foundations of mathematics.

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Classification: I15 E65

Keywords: set theory; Peano axioms; real analysis; complex analysis; axioms; consistency; redundancy; foundations of mathematics