

Continuum Theory

An Introduction

by Sam B. Nadler Jr.

Pure and Applied Mathematics

Marcel Dekker, Inc., 1992

Sam B. Nadler, Jr.

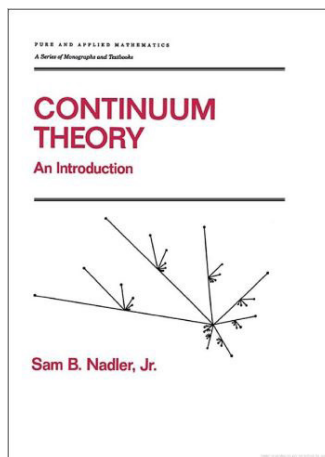
The book consists of thirteen chapters and is divided into two parts. Chapters I-VII comprise the first part and deal with the general structure of continua. Chapters VIII-XIII comprise the second part and are concerned with specific types of continua and maps.

There are several threads that unify various aspects of the material, but the most pervasive is the nested intersection technique introduced in Chapter I. It is used throughout the book to construct continua and maps and to prove theorems. Indecomposable continua and hereditarily indecomposable continua are constructed early (Chapter I) and are investigated and discussed in various places.

In view of the vast literature on continuum theory, I could cover only a limited number of topics.

The book presents a mixture of classical and modern ideas and techniques. I hope that readers will find it an appropriate introduction that gives the uninitiated a foundation on which to build an understanding of continuum theory.

Only a minimal knowledge of basic concepts from topology is assumed. The reader should be familiar with the elementary properties of compactness, connectedness, continuous functions, and the topology of metric spaces. Therefore, those who



have had the equivalent of a standard one-semester topology course should be able to read and understand the book.

There are many exercises at the end of each chapter; they are an integral part of the book. They are not designed to test the memory of specific results. Some exercises are mainly a discussion of ideas in the chapter and the relationship of these ideas to material in other chapters or in the literature. All exercises can be done with the material given.

I express my gratitude to W. J. Charatonik of the Department of Mathematics at the University of Wrocław (Wrocław, Poland) with whom I had numerous stimulating discussions regarding some of the material while he was a visiting professor at West Virginia University. Special thanks go to the students in my class (Clyde Campbell, C. Brad Davis, Yongping Luo, Gary A. Sel-donridge, Timothy Swyter, and Cheng Zhao) who allowed themselves to be test subjects as the first students to study continuum theory from this book.

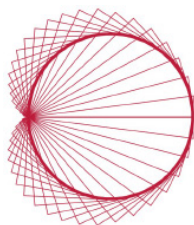


La primera vez

Un escritor nunca olvida la primera vez que acepta unas monedas o un elogio a cambio de una historia. Nunca olvida la primera vez que siente el dulce veneno de la vanidad en la sangre y cree que, si consigue que nadie descubra su falta de talento, el sueño de la literatura será capaz de poner techo sobre su cabeza, un plato caliente al final del día y lo que más anhela: su nombre impreso en un miserable pedazo de papel que seguramente vivirá más que él. Un escritor está condenado a recordar ese momento, porque para entonces ya está perdido y su alma tiene precio.

Carlos Ruiz Zafón

Barcelona,
25 de septiembre de 1964,
Los Ángeles,
19 de junio de 2020.



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hml@ciencias.unam.mx, silviatorres59@gmail.com, ivonne_gamboa@ciencias.unam.mx
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