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P. J. Higgins

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Contents

	Page
Preface	v
CHAPTER I Preliminaries	
1. Historical notes	1
2. Categories	2
3. Groups	8
4. Topological spaces	9
CHAPTER II Topological groups	
1. The category of topological groups	16
2. Subgroups and quotient groups	18
3. Products	25
4. Fundamental systems of neighbourhoods	26
5. Separation axioms	29
6. Open subgroups	34
7. Connectedness	35
8. Compactness	42
9. Profinite groups	51
10. Locally compact groups	55
CHAPTER III Integration on locally compact groups	
1. Abstract integrals	61
2. Some results on approximation	65
3. Convex cones	69
4. The existence of Haar integrals	72
5. The uniqueness of Haar integrals	73
6. Integrals on product groups	77
7. Unimodular groups	79

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[More information](#)

CHAPTER IV	Examples and applications	
1.	Extensions of Haar integrals	83
2.	Examples of Haar integrals	84
3.	Representations of compact groups	92
4.	Topics for further reading	102
	References	103
	Index	104
	Index to numbered results	108

Preface

In 1969, and again in 1972, I gave an introductory course on topological groups at the University of London. The audience consisted largely of first-year postgraduate students in algebra or number theory and the course was designed to meet their needs, which I took to be a knowledge of basic facts about various general types of topological groups and enough about the Haar integral to enable them to appreciate its use in such contexts as representation theory and algebraic number theory. Some of the students had little or no background in topology and for this reason topological concepts were developed ab initio, whereas the rudiments of group theory were assumed.

After the 1969 course there was some demand from new students for copies of the notes and so it was decided to produce a duplicated set of notes of the 1972 lectures. I am extremely grateful to Robert Coates, Michael Rutter and Anthony Solomonides for all their hard work in preparing the mimeographed version on which the present notes are based. I have made a number of minor changes and amplified some passages when this seemed advisable for a wider audience. I have also added an informal section on the representation theory of compact groups which I intended to include in the course but for which there was no time. Its purpose is to illustrate one practical application of the Haar integral and to encourage further reading.

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1974

P. J. Higgins