FINITE ELEMENTS IN VECTOR LATTICES

Finite elements in Archimedean vector lattices are introduced as abstract models of finite functions, i.e. continuous functions with compact support on some topological space.

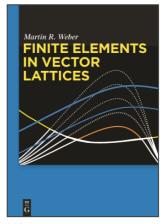
This book is the first systematical treatment of the theory of finite elements, contains the results known up to the year 2013 and joins all important contributions achieved by a series of mathematicians that can only be found scattered in the literature.

Martin R. Weber, Technical University Dresden, Germany.

Contents

1 Introduction

- 2 Ordered vector spaces and vector lattices
- 3 Finite, totally finite and selfmajorizing elements
- 4 Finite elements in vector lattices of linear operators
- 5 The space of maximal ideals of a vector lattice
- 6 Topological characterization of finite elements
- 7 Representations of vector lattices and their properties
- 8 Vector lattices of continuous functions with finite elements
- 9 Representations of vector lattices by means of continuous functions
- 10 Representations of vector lattices by means of bases of finite elements



229 pp. RRP € 129.95 / *US\$ 182.00 ISBN 978-3-11-035077-7 **eBook** RRP € 129.95 / *US\$ 182.00 ISBN 978-3-11-035078-4 **ePub** RRP € 129.95 / *US\$ 182.00 ISBN 978-3-11-037827-6 **Print + eBook** RRP € 199.95 / *US\$ 280.00 ISBN 978-3-11-035079-1 **Date of publication** June 2014 **Language** English **Subject** Analysis



DE GRUYTER