

Contents

Introduction	
Acknowledgements	
Notation and Conventions	
Chapter 1: Linear topologies and topologizing filters	1
Chapter 2: The lattice structure of $R\text{-fil}$	15
Chapter 3: $R\text{-fil}$ as a semiring	30
Chapter 4: $(R\text{-fil})^{\text{du}}$ as a lattice-ordered monoid	43
Chapter 5: Idempotent elements of $R\text{-fil}$	55
Chapter 6: Transfinite products in $R\text{-fil}$	72
Chapter 7: Duprime and dusemiprime filters	78
References	92
Index	101