

Contents

Preface	v
1 Examples and the independence of axioms	1
1.1 Examples of doppelsemigroups	1
1.2 Examples of strong doppelsemigroups	7
1.3 The independence of axioms of a strong doppelsemigroup.	10
2 Structure of free doppelsemigroups	15
2.1 Free products and free doppelsemigroups	15
2.2 Free commutative and free n -nilpotent doppelsemigroups	22
2.3 Free n -dinilpotent doppelsemigroups	30
2.4 Free left n -dinilpotent doppelsemigroups	37
3 Structure of free strong doppelsemigroups	51
3.1 Free strong doppelsemigroups	51
3.2 Free n -dinilpotent strong doppelsemigroups	56
3.3 Free commutative and free n -nilpotent strong doppelsemigroups.	63
3.4 The least congruences on a free strong doppelsemigroup	67
Bibliography	71
Index	77