

Contents

1: Introduction	1
1.1 Motivation	1
1.2 The Basic Idea	5
1.3 Related Work	10
1.4 Outline	15
2: Preliminaries	17
2.1 Signatures, Formulae, and Structures	18
2.2 Models and Theories	21
2.3 Sorted Logics	24
2.4 Feature Logic – A Logic with Structured Types	28
2.5 Concept Logic	31
3: Unification	35
3.1 Unification Problems, Goals, and Solutions	36
3.2 Semantics of Unification	40
3.3 Sort Unification	45
3.4 Feature Unification	47
4: A Logic with Restricted Quantifiers	49
4.1 Formulae with Restricted Quantifiers	50
4.2 Semantics	54
4.3 RQ-Clause Form	58
4.4 Resolution with Restricted Quantifiers	60
4.5 Soundness and Completeness of RQ-Resolution	62
4.6 Consequences and Discussion	67

4.7	Simplification of Restrictions	73
4.8	Combination of Restriction Theories.....	76
5:	Equational Constraint Theories.....	79
5.1	Disunification Problems	79
5.2	AC-Unification is AC1-Disunification.....	86
5.3	On' the Decidability of Equational Constraints.....	88
6:	Conclusion.....	97
	Bibliography	101
	Subject Index	111
	Symbol Index.....	115