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Jouko Väänänen (Ed.)

# Generalized Quantifiers and Computation

9th European Summer School  
in Logic, Language, and Information  
ESLLI'97 Workshop  
Aix-en-Provence, France, August 11-22, 1997  
Revised Lectures



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# Foreword

The papers contained in this volume were presented at the workshop *Generalized Quantifiers and Computation* of ESSLLI'97, the 9th European Summer School in Logic, Language and Information in Aix-en-Provence, France, August 11-22, 1997.

ESSLLI'97 was organised under the auspices of the European Association for Logic, Language and Information (FoLLI). The annual ESSLLI Summer School has developed into an important meeting place and forum for discussion for researchers and students interested in the interdisciplinary study of Logic, Computer Science, Linguistics, and Cognitive Science.

The purpose of the workshop *Generalized Quantifiers and Computation* in ESSLLI'97 was to bring together experienced researchers and students in the areas of generalized quantifiers in finite model theory on one hand, and regular languages and circuit complexity on the other hand.

The speakers at the workshop were:

1. Anuj Dawar: Finite variable equivalence and generalized quantifiers.
2. Kousha Etessami: Dynamic tree-isomorphism via first-order update.
3. Lauri Hella: Enhancing fixed point logic with generalized quantifier.
4. Christian Michaux: Definability and undefinability in extensions of Presburger arithmetic, Buchi arithmetics. Applications.
5. Ari Koponen: Definability of group theoretical notions.
6. Kerkko Luosto: Ramsey theory is needed for solving definability problems of generalized quantifiers.
7. Johann Makowsky: Invariant definability and circuit complexity.
8. Juha Nurmonen: Local properties and finite structures.
9. Iain Stewart: Logical characterization of oracle complexity classes.
10. Jouko Väänänen: Generalized quantifiers and computation - an introduction.
11. Helmut Veith: Generalized quantifiers in logic programming and query languages.
12. Heribert Vollmer: Generalized quantifiers in complexity theory.

I am grateful to all the authors who contributed a paper to this proceedings volume.

October 1999-

Jouko Väänänen

# Table of Contents

Generalized Quantifiers, an Introduction . . . . .	$\psi$ 1
<i>Jouko Väänänen</i>	
Counting and Locality over Finite Structures A Survey . . . . .	18
<i>Leonid Libkin, Juha Nurmonen</i>	
A Perspective on Lindström Quantifiers and Oracles . . . . .	51
<i>Iain A. Stewart</i>	
Generalized Quantifiers in Logic Programs . . . . .	72
<i>Thomas Eiter, Georg Gottlob, Helmut Veith</i>	
A Generalized Quantifier Concept in Computational Complexity Theory . .	99
<i>Heribert Vollmer</i>	
Ramsey Theory Is Needed for Solving Definability Problems of Generalized Quantifiers . . . . .	124
<i>Kerkko Luosto</i>	