Mathematical Linguistics

Eventually, you will no question discover a further experience and deed by spending more cash. yet when? reach you tolerate that you require to acquire those every needs later having significantly cash? Why dont you attempt to get something basic in the beginning? Thats something that will guide you to comprehend even more in the region of the globe, experience, some places, following history, amusement, and a lot more?

It is your completely own times to feat reviewing habit. among guides you could enjoy now is **Mathematical Linguistics** below.

Mathematical Linguistics in Eastern Europe - Ferenc Kiefer 1968

Automatic Documentation and Mathematical Linguistics - 2001

Issues in Mathematical Linguistics - Carlos Martín-Vide 1999-11-15
This brief collection of refereed papers approaches several technical as well as methodological aspects of the mathematical formalization of natural language, particularly in syntax and in semantics. Such kind of investigation is a prerequisite for the computational processing of language and is narrowly related to current developments in other disciplines, namely theoretical computer science and mathematical logic. The volume offers a coherent picture of recent research on the mathematics of language, and may be of interest to a wide audience, from linguists to mathematicians. Detailed indexes of authors and topics provide an easy access to the contents.
Applications of the Mathematical Theory of Linguistics - Richard Timon Daly 1974

Prague Studies in Mathematical Linguistics - Eva Haji?ová 1987-01-01
The papers in this volume are divided into two sections. Part 1 Quantitative Linguistics contains contributions by Marie Těšitelová; Ludmila Uhlířová; I. Nebeská; M. Ludvíková; H. Confortiová; Marie Těšitelová , J. Petr & Jan Králík; J. Štěpán; J. Krámský; J. Dušková; J. Sabol. Part 2 Algebraic Linguistics contains contributions by M. Novotný; L. Nebeský; Petr Sgall; Eva Hajičová, Petr Sgall & J. Vrbová; Jarmila Panevová; Petr Piťha; Eva Buráňová; Svatava Machová; Eva Hajičová, M. Hnátková & P. Jirků; Zdenek Kirschner; Pavel Materna.
Issues in Mathematical Linguistics - Carlos Martín Vide 1999
This brief collection of refereed papers approaches several technical as well as methodological aspects of the mathematical formalization of natural language, particularly in syntax and in semantics. Such kind of investigation is a prerequisite for the computational processing of language and is narrowly related to current developments in other disciplines, namely theoretical computer science and mathematical logic. The volume offers a coherent picture of recent research on the mathematics of language, and may be of interest to a wide audience, from linguists to mathematicians. Detailed indexes of authors and topics provide an easy access to the contents.
Mathematical Linguistics and Automatic Translation - 1967

The Prague Bulletin of Mathematical Linguistics - 1999

Introduction to Mathematical Linguistics - Robert E. Wall 1974

Elements of Mathematical Linguistics - Aleksej Vsevolodovič Gladkij 1983

Current Issues in Mathematical Linguistics - C. Martín-Vide 2014-06-28
The present volume contains some selected topics of current interest around the world in the mathematical analysis of natural language. The book is divided into four sections: - analytical algebraic models - models from the theory of formal grammars and automata, with interest mainly in syntax - model-theoretic concepts in semantics or pragmatics, and - a final section containing some applications in computational linguistics. The varied perspectives illustrated in the book confirm that Mathematical Linguistics has finally introduced scientific methods into a previously fuzzy field, through the use of mathematical reasoning. The text will contribute to a fruitful convergence between linguists, mathematicians, logicians, computer scientists, cognitive scientists and others interested in the formal treatment of natural language and the research of its properties.
Language & Grammar - Claudia Casadio 2005
The application of logic to grammar is a fundamental issue in philosophy and has been investigated by such renowned philosophers as Leibniz, Bolzano, Frege, and Husserl. Language and Grammar examines categorial grammars and type-logical grammars, two linguistic theories that play a significant role in this area of study yet have been overshadowed until recently. The prominent scholars contributing to this volume also explore the impact of the Lambek program on linguistics and logical grammar, producing, ultimately, an exciting and important resource that demonstrates how type-logical grammars are promising future models of reasoning and computation.
Prague Studies in Mathematical Linguistics - 1978

Mathematical Methods in Linguistics - Barbara B.H. Partee 1990-04-30
Elementary set theory accustoms the students to mathematical abstraction, includes the standard constructions of relations, functions, and orderings, and leads to a discussion of the various orders of infinity. The material on logic covers not only the standard statement logic and first-order predicate logic but includes an introduction to formal systems, axiomatization, and model theory. The section on algebra is presented with an emphasis on lattices as well as Boolean and Heyting algebras. Background for recent research in natural language semantics includes sections on lambda-abstraction and generalized quantifiers. Chapters on automata theory and formal languages contain a discussion of languages between context-free and context-sensitive and form the background for much current work in syntactic theory and computational linguistics. The many exercises not only reinforce basic skills but offer an entry to linguistic applications of mathematical concepts. For upper-level undergraduate students and graduate students in theoretical linguistics, computer-science students with interests in computational linguistics, logic programming and artificial intelligence, mathematicians and logicians with interests in linguistics and the semantics of natural language.
Elements of Mathematical Linguistics - Alexej V. Gladkij 2020-07-06

Prague Studies in Mathematical Linguistics - 1986

Introduction to Mathematical Linguistics - Robert Eugene Wall 1972

Joachim Lambek: The Interplay of Mathematics, Logic, and Linguistics - Claudia Casadio 2021-04-21
This book is dedicated to the life and work of the mathematician Joachim Lambek (1922–2014). The editors gather together noted experts to discuss the state of the art of various of Lambek's works in logic, category theory, and linguistics and to celebrate his contributions to those areas over the course of his multifaceted career. After early work in combinatorics and elementary number theory, Lambek became a distinguished algebraist (notably in ring theory). In the 1960s, he began to work in category theory, categorical algebra, logic, proof theory, and foundations of computability. In a parallel development, beginning in the late 1950s and for the rest of his career, Lambek also worked extensively in mathematical linguistics and computational approaches to natural languages. He and his collaborators perfected production and type

grammars for numerous natural languages. Lambek grammars form an early noncommutative precursor to Girard's linear logic. In a surprising development (2000), he introduced a novel and deeper algebraic framework (which he called pregroup grammars) for analyzing natural language, along with algebraic, higher category, and proof-theoretic semantics. This book is of interest to mathematicians, logicians, linguists, and computer scientists.

The Mathematics of Syntactic Structure - Hans-Peter Kolb 1999-01-01

The architecture of the human language faculty has been one of the main foci of the linguistic research of the last half century. This branch of linguistics, broadly known as Generative Grammar, is concerned with the formulation of explanatory formal accounts of linguistic phenomena with the ulterior goal of gaining insight into the properties of the 'language organ'. The series comprises high quality monographs and collected volumes that address such issues. The topics in this series range from phonology to semantics, from syntax to information structure, from mathematical linguistics to studies of the lexicon.

Prague Studies in Mathematical Linguistics - Lubomír Doležal 1966

Mathematical Methods in Linguistics - Barbara B.H. Partee 2012-12-06

Elementary set theory accustoms the students to mathematical abstraction, includes the standard constructions of relations, functions, and orderings, and leads to a discussion of the various orders of infinity. The material on logic covers not only the standard statement logic and first-order predicate logic but includes an introduction to formal systems, axiomatization, and model theory. The section on algebra is presented with an emphasis on lattices as well as Boolean and Heyting algebras. Background for recent research in natural language semantics includes sections on lambda-abstraction and generalized quantifiers. Chapters on automata theory and formal languages contain a discussion of languages between context-free and context-sensitive and form the background for much current work in syntactic theory and computational linguistics. The many exercises not only reinforce basic skills but offer an entry to linguistic applications of mathematical concepts. For upper-level undergraduate students and graduate students in theoretical linguistics, computer-science students with interests in computational linguistics, logic programming and artificial intelligence, mathematicians and logicians with interests in linguistics and the semantics of natural language.

Scientific Applications of Language Methods - Carlos Martin Vide 2011

Presenting interdisciplinary research at the forefront of present advances in information technologies and their foundations, Scientific Applications of Language Methods is a multi-author volume containing pieces of work (either original research or surveys) exemplifying the application of formal language tools in several fields, including logic and discrete mathematics, natural language processing, artificial intelligence, natural computing and bioinformatics.

Mathematical Linguistics and Automatic Language Processing - 1971

Introduction to Mathematical Linguistics - Robert Wall 1978

Mathematical Models of Language - Ferenc Kiefer 1973

Prague Studies in Mathematical Linguistics - Eva Haji?ová 1990-01-01

The papers in this volume are divided into two sections. Part 1 Quantitative Linguistics contains contributions by Marie Těšitelová; M. Ludvíková; H. Confortiová; Ludmila Uhlířová; I. Nebeská; Jan Králík; J. Krámský; J. Sabol; J. Štěpán. Part 2 Algebraic Linguistics contains contributions by M. Novotný; Pavel Materna; Eva Hajičová, Petr Sgall & Petr Piťha; Jarmila Panevová & Petr Sgall.

Mathematical Linguistics - Andras Kornai 2007-11-10

Mathematical Linguistics introduces the mathematical foundations of linguistics to computer scientists, engineers, and mathematicians interested in natural language processing. The book presents linguistics as a cumulative body of knowledge from the ground up: no prior

knowledge of linguistics is assumed. As the first textbook of its kind, this book is useful for those in information science and in natural language technologies.

Case and Gender - Willem Andries Helden 1993

The cybernetic dream which pervades Soviet bureaucracy after Stalin produced a relatively liberal and generous science policy. In linguistics, the new spirit gave rise to a variety of trends professing to practise structural, mathematical or applied linguistics, and promising practical applications in natural language processing. The trends originating in the sixties comprise the so-called Set-theoretical School. In 1957 the mathematician Kolmogorov confronted the participants of a seminar on mathematical linguistics with a few pilot questions, such as what exactly do we mean when we say that two words are in the same case? The rigorous answers which the Set-theoretical School worked out for Kolmogorov's questions turned out to have far-reaching implications for linguistic theory.Case and Genderexamines both the contextual and the internal development of the Set-theoretical School. The rise and decline of the School can be ascribed to Soviet humanities policy, while the specifics of its linguistic development can be attributed to the non-linguistic backgrounds and applied goals of its first exponents. The two volumes contain a systematic account of the networks of definitions (models) proposed by the School, and provide a metamodel which facilitates providing a consistent formalization of the models and uncovering their implicit assumptions on the properties of language. The metamodel also enables an orderly comparison of the models with one another and with terminological systems developed elsewhere. Moreover, the models are evaluated, amended, and confronted with linguistic material from various languages. The later chapters are concluded with more far-reaching proposals. Kolmogorov's questions must be taken seriously. The turn toward a semantics-orientated approach which is evident in the last stage of the development of the Set-theoretical School must be pursued. New definitions of 'case' and 'gender' are proposed in accordance with the new approach.Case and Gendercontains not only an analytical survey of the complete scientific output of the Set-theoretical School on morphology and syntax but also a confrontation with contemporary western theories. It shows the viability of a tradition which was abandoned as a result of political developments. The long chapter on the history of the relationship between linguistics and politics in the Soviet Union contains new material on the 1950 linguistic discussion in Pravda, which was decided by Stalin's contribution and whose impact would last for decades to come.

Mathematical Linguistics and Automatic Language Processing - 1969

Introduction of Elements of Mathematics to Linguistics - Raĭmond Genrikhovich Piotrovskiĭ 1990

Mathematical Linguistics and Automatic Translation - Harvard University. Computation Laboratory 1959

Grammars and Automata for String Processing - Carlos Martin-Vide 2004-11-23

The conventional wisdom was that biology influenced mathematics and computer science. But a new approach has taken hold: that of transferring methods and tools from computer science to biology. The reverse trend is evident in Grammars and Automata for String Processing: From Mathematics and Computer Science to Biology and Back. The contributors address the structural (syntactical) view of the domain. Mathematical linguistics and computer science can offer various tools for modeling complex macromolecules and for analyzing and simulating biological issues. This collection is valuable for students and researchers in biology, computer science, and applied mathematics.

Mathematical and Computational Analysis of Natural Language - Carlos Martín Vide 1998-01-01

In the last decade, computational linguistics has produced a revival of the interest in the mathematical study of the various levels of human language. This volume contains a selection of recent research papers approaching mathematical and computational topics in natural

languages, with a special attention being paid to syntax and semantics. According with their main focus, the papers are distributed into four parts: Syntax, Semantics, Natural language processing and Varia, which cover a vast range of problems. The book may be of interest to all those who intend to know which kind of mathematics is used when giving account of natural language, as well as to people working on computational issues involving human-machine interaction.

Representing Structure in Phonology and Syntax - Marc van Oostendorp 2015-08-17

Formal grammars by definition need two parts: a theory of computation (or derivation), and a theory of representation. While recent attention in mainstream syntactic and phonological theory has been devoted to the former, the papers in this volume aim to show that the importance of representational details is not diminished by the insights of such theories.

Prague Studies in Mathematical Linguistics 10 - Eva Haji?ová 1990

The papers in this volume are divided into two sections. Part 1 Quantitative Linguistics contains contributions by Marie Te□itelová; M. Ludvíková; H. Confortiová; Ludmila Uhlírová; I. Nebeská; Jan Králík; J. Krámský; J. Sabol; J. □tepán. Part 2 Algebraic Linguistics contains contributions by M. Novotný; Pavel Materna; Eva Hajicová, Petr Sgall & Petr Pitha; Jarmila Panevová & Petr Sgall.

Mathematical Models in Linguistics - Maurice Gross 1972

Mathematical linguistics in the Soviet Union - Ferenc Papp 2019-01-01

To celebrate the 270th anniversary of the De Gruyter publishing house, the company is providing permanent open access to 270 selected treasures from the De Gruyter Book Archive. Titles will be made available to anyone, anywhere at any time that might be interested. The DGBA project seeks to digitize the entire backlist of titles published since 1749 to ensure that future generations have digital access to the high-quality primary sources that De Gruyter has published over the centuries.

Mathematical Linguistics - Andras Kornai 2007-12-16

Mathematical Linguistics introduces the mathematical foundations of linguistics to computer scientists, engineers, and mathematicians interested in natural language processing. The book presents linguistics as a cumulative body of knowledge from the ground up: no prior knowledge of linguistics is assumed. As the first textbook of its kind, this book is useful for those in information science and in natural language technologies.

Quantitative Linguistics - Gustav Herdan 1964

Language, The Law and The Probits (short for probabilities) was the title originally chosen for this book. It had to be abandoned, as it did not seem suitable for a volume in a series of mathematical monographs, but it was retained as the heading of Chapter 3. It is meant to bring home to the reader that the mathematical linguist was not just a purveyor of statistical ironmongery, deriving ad hoc methods for particular out-of-the-way problems, but that mathematical linguistics are part and parcel of linguistics, just as The Prophets are of the Old Testament.

The Mathematics of Language - Makoto Kanazawa 2011-10-01

This book constitutes the proceedings of the 12th Biennial Meeting on Mathematics in Language, MOL 12, held in Nara, Japan, in September 2011. Presented in this volume are 12 carefully selected papers, as well as the paper of the invited speaker Andreas Maletti. The papers cover such diverse topics as formal languages (string and tree transducers, grammar-independent syntactic structures, probabilistic and weighted context-free grammars, formalization of minimalist syntax), parsing and unification, lexical and compositional semantics, statistical language models, and theories of truth.