

The Language Complexity Game

This work elucidates the structure and complexity of human language in terms of the mathematics of information and computation. This work elucidates the structure and complexity of human language in terms of the mathematics of information and computation. It strengthens Chomsky's early work on the mathematics of language, with the advantages of a better understanding of language and a more precise theory of structural complexity. Ristad argues that language is the process of constructing linguistic representations from the forms produced by other cognitive modules and that this process is NP-complete. This NP-completeness is defended with a phalanx of elegant and revealing proofs that rely only on the empirical facts of linguistic knowledge and on the uncontroverted assumption that these facts generalize in a reasonable manner. For this reason, these complexity results apply to all adequate linguistic theories and are the first to do so. Eric Sven Ristad is Assistant Professor of Computer Science at Princeton University. He is the coauthor of Computational Complexity and Natural Language. Contents: Foundation of the Investigation. Anaphora. Ellipsis. Phonology. Syntactic Agreement and Lexical Ambiguity. Philosophical Issues. Review text: 'Eric Ristad's carefully reasoned and penetrating study brings together the theories of language structure and computational complexity in a most productive way, providing much new insight into the nature and use of language.' -- Noam Chomsky, MIT 'How can language be both complex and subtle, yet simple and effortless? Eric Ristad's book tackles this deepest of questions with all the power and precision of modern computer science, coming up with the best analysis of human language complexity since Chomsky's famous demonstrations that natural languages cannot be described via simple linear patterns.' -- Robert C. Berwick, MIT

9,50 €

8,88 € (zzgl. MwSt.)

Nicht mehr lieferbar
Artikelnummer: 9780262181471

Medium: Buch

ISBN: 978-0-262-18147-1

Verlag: MIT Press Ltd

Erscheinungstermin: 17.03.1993

Sprache(n): Englisch

Auflage: Erscheinungsjahr 1993

Serie: Artificial Intelligence Series

Produktform: Gebunden

Gewicht: 363 g

Seiten: 168

Format (B x H): 157 x 226 mm
