

Automorphisms Of The Lattice Of Recursively Enumerable Sets

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ABSTRACT DEPENDENCE, RECURSION THEORY, AND THE
LATTICE OF RECURSIVELY ENUMERABLE FILTERS

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This thesis is divided into two sections. Both sections are devoted to the study of effectiveness in algebra, realized as analyses of sub-structures of recursive structures. Section One deals with closed subsets of a Steinitz closure system with recursive dependence as introduced by Metakides and Nerode. Initially we generalize many results proved by Metakides and Nerode and results concerning $L(V_\omega)$, the lattice of recursively enumerable subspaces, to considerably more general settings. To do this we introduce the notions of *semiregularity* and the *closure intersection property*, and show how they account for most of the observed phenomena in $L(V_\omega)$ and $L(\omega)$, the lattice of recursively enumerable sets. For example, we show that if (U, cl) has the closure intersection property and is semiregular then $Th[L(U)]$ is undecidable. Similarly, we show that as (F_ω, cl) is regular, the Karp-Myhill theorem fails for F_ω .

Shore defined *nowhere simplicity* in $L(\omega)$. We examine analogues of this notion in $L(U)$, and in particular $L(V_\omega)$. If (U, cl) has the closure intersection property then any recursively enumerable nondecidable closed subset can be decomposed into a pair of recursively enumerable nondecidable nowhere simple closed subsets. We use this for results concerning automorphisms of $L(V_\omega)$. We examine effective nowhere simplicity via the notion of a *maximal pair*. A recursively enumerable set A can be split into a maximal pair if and only if A is simple.

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W Maass, M Stob The intervals of the lattice of recursively enumerable sets determined by major subsets. Ann. Pure Appl. Logic, 24 (), pp. [R]. This chapter discusses the automorphisms of the lattice of recursively enumerable (r.e.) sets and hyperhypersimple (hh-simple) sets. While Maass proved a. Automorphisms of the lattice of recursively enumerable sets. Part II: R.M. Friedberg Two recursively enumerable sets of incomparable degrees of unsolvability. This work explores the connection between the lattice of recursively enumerable (r.e.) sets and the r.e. Turing degrees. Cholak presents a. Request PDF on ResearchGate Automorphisms of the Lattice of Recursively Enumerable Sets: Promptly Simple Sets We show that for every coinfinite r.e. set. Chapter 1: Introduction. $S =$ is the substructure formed by restricting the lattice to the re subsets We of the. ROBERT I. SOARE () Automorphisms of the lattice of recursively enumerable sets Part I: Maximal sets. Mathematical Logic in the 20th Century: pp. One important program in the study of the structure of F , the lattice of r.e. sets, is determining the relationship between the algebraic structure of a set and the. Soare, Robert I. Automorphisms of the lattice of recursively enumerable sets. Bull. Amer. Math. Soc. 80 (), no. 1, Automorphisms of the Lattice of Recursively Enumerable Sets: Promptly Simple Sets. Author(s): Peter Cholak, Rod Downey and Michael Stob. Source. This work explores the connection between the lattice of recursively enumerable (r.e.) sets and the r.e. Turing degrees. Cholak presents a degree-theoretic. Automorphisms of the Lattice of Recursively Enumerable Sets. Front Cover. Peter Abe Cholak. University of Wisconsin--Madison, - pages. Automorphisms of the lattice of recursively enumerable sets Automorphisms of the lattice of recursively enumerable sets. University of Wisconsin at Madison. THE LATTICE OF RECURSIVELY ENUMERABLE SETS. MICHAEL JAY r.e. sets are invariant under $Aut g^7$, the group of automorphisms of g^* . Many of the. Author: Cholak, Peter, [Browse]; Format: Book; Language: English; Published/Created: Providence, RI: American Mathematical Society, download automorphisms of the lattice of recursively enumerable sets issues conflicting the specification of restaurant by model sadness. E-mail: Vago DR. complements possess a unique (to within isomorphism) lattice of recursively A recursively enumerable set with t -retraceable complements has been useful in. Automorphisms of the Lattice of Recursively Enumerable Sets (Memoirs of the American Mathematical Society) by Peter Cholak at sgheisingen.com - ISBN Automorphisms of the Lattice of Recursively Enumerable Sets: Peter Cholak: Books - sgheisingen.com By Peter Cholak. This paintings explores the relationship among the lattice of recursively enumerable (r.e.) units and the r.e. Turing levels. Buy Automorphisms of the Lattice of Recursively Enumerable Sets (Memoirs of the American Mathematical Society) by Peter Cholak (ISBN:). Automorphisms of the lattice of recursively enumerable sets. Part II: Low sets. Annals of Mathematical Logic 22 () North-Holland Publishing Company. [2], Automorphisms of the lattice of recursively enumerable sets: the promptly simple sets. Midwest Model Theory Conference, Madison, WI,

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