

A TOPOLOGICAL STUDY OF k -ROUGH HEYTING ALGEBRAS

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The theory of rough sets has been the subject of nearly two decades of research in both foundations and various applications (see [1]). A substantial portion of the work done on the theory has been devoted to studying its algebraic aspects (see [2]). Specific algebraic structures, such as approximate algebras and rough lattices, have been developed to represent rough sets. These algebraic structures provide a mathematical framework for the analysis and application of rough sets in various fields. In summary, the study of the algebraic aspects of rough sets has played a significant role in the conducted research in this field. It has led to the development of tools and techniques for analyzing and applying rough sets in diverse areas. In particular, Eric San Juan introduced the notion of k -rough Heyting algebras as an algebraic formalism for reasoning about increasing finite sequences in Boolean algebras in general and generalizations of rough set concepts in particular in his work (see [3]). The main objective of this work is to conduct a topological study of k -rough Heyting algebras.

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Referencias

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