

عنوان مقاله:

On the Lattice of Filters of Intuitionistic Linear Algebras

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خلاصه مقاله:

In this paper, we investigate the filter theory of Intuitionistic Linear Algebra (IL-algebra, in short) with emphasis on the lattice of filters of IL-algebras and relationship between filters and congruences on IL-algebras. We characterize the filter generated by a subset and give some related properties. The prime filter for IL-algebras is characterized and the prime filter theorem for IL-algebra is established. We get that the lattice $(F(\mathbf{L}), \subseteq)$ of filters of an IL-algebra \mathbf{L} is algebraic, Brouwerian, pseudocomplemented and endowed with the structure of Heyting algebra. We prove that the lattice of congruences and that of filters of any IL-algebra are isomorphic.

کلمات کلیدی:

IL-algebra, Filter, Prime filter, Congruence, Residuated lattice.

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