

On Algebraic and Topological Aspects of ILF-Automata

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ABSTRACT

This work is towards the study of theory of IF-automata based on residuated lattices (ILF-automaton) and to use ILF-topological concepts for study of algebraic concepts therein. We introduce the notion of ILF-subsystems and strong ILF-subsystems of an ILF-automaton and show that these are precisely the ILF-closed sets with respect to the ILF-topologies introduced on state-set of an ILF-automaton. Finally, we study the characterization of separated ILF-subsystem for an ILF-automaton.

Keywords: ILF-automata; ILF-topology; ILF-subsystem; Strong ILF-subsystem.

