

Automatic structures and the theory of lists

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Abstract

© 2015 Bazhenov N.A. Goncharov constructed the axiomatic theory of linear lists over the elements of a given data type. We study algorithmic complexity for models of this theory. We prove that the enriched list structure over a finite set of atoms is automatically presentable, and the enriched list structure over an infinite set of atoms has no automatic presentations.

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Keywords

Automatic structure, Decidable model, Linear list, List superstructure, Theory of lists