

On the coset structure of distributive skew lattices

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Received 14 July 2019, accepted 19 September 2019, published online 29 December 2019

Abstract

In the latest developments in the theory of skew lattices, the study of distributivity has been one of the main topics. The largest classes of examples of skew lattices thus far encountered are distributive. In this paper, we will discuss several aspects of distributivity in the absence of commutativity, and review recent related results in the context of the coset structure of skew lattices. We show that the coset perspective is essential to fully understand the nature of skew lattices and distributivity in particular. We will also discuss the combinatorial implications of these results and their impact in the study of skew lattices.

Keywords: Skew lattices, distributive structures, noncommutative structures, ordered structures, bands of semigroups.

Math. Subj. Class.: 06A75, 06B20, 06B75

*The author thanks the support of the Croatian Science Foundation's funding of the project EVOSOFT, with the reference UIP-2014-09-7945.

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O odsekovni strukturi distributivnih poševnih mrež

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Prejeto 14. julija 2019, sprejeto 19. septembra 2019, objavljeno na spletu 29. decembra 2019

Povzetek

V najnovejših raziskavah v teoriji poševnih mrež je študij distributivnosti ena glavnih smeri. Med doslej obravnavanimi primeri poševnih mrež je največ distributivnih. V prispevku obravnavamo različne aspekte distributivnosti, ki nastopijo v odsotnosti komutativnosti, in povzamemo pred kratkim dobljene rezultate v zvezi z odsekovno strukturo poševne mreže. Pokažemo, da je prav odsekovna struktura odločilna pri razumevanju poševnih mrež in še posebej njihove distributivnosti. Obravnavamo tudi kombinatorne posledice teh rezultatov in njihove ustrezne vplive pri študiju poševnih mrež.

Ključne besede: Poševne mreže, distributivne strukture, nekomutativne strukture, urejene strukture, pasovi polgrup.

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* Avtor se zahvaljuje za podporo s strani Croatian Science Foundation pri financiranju projekta EVOSOFT, referenčna oznaka UIP-2014-09-7945.

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