

Editorial Comments:

Its theoretical results can be of some minor interest (also references list shows that this is really not a main stream, and mostly only authors papers are quoted there...), but it is really difficult to evaluate this! Linguistic part of the paper is very poor and significantly influencing the scientific part (author has obtained this warning in one of reviews, but he has not done sufficient revisions!!!). Check, e.g., Theorem 3.3. = nobody knows what are terms $a_1, \dots, a_n$ (are they from H ?; is the cardinality n important?, if yes, this is nowhere mentioned; if not, then it is enough to consider $n = 1$; etc.) = and then it is impossible to check the correctness...
paper lacks also good illustrative examples which will show the importance of authors results;

Author's Feedback:

Thanks for your inquiry. So now, I would do is get rid of the loopholes.

(1) In Theorem 3.3.

... if and only if there exist $a_1, a_2, \dots, a_n \in H$ such that ...

(2)

Examples 3.1. In a BCL^+ algebra, the every order filtration is a deductive system, i.e., since $x \in D$ and $x * y \in D$ imply $y \in D$, and $z \in D$ is a lower bound of x and $x * y$, hence $z \leq y$. In fact

$$\begin{aligned} z * y &= 1 * (z * y) \\ &= (z * x) * (z * y) \\ &= z * (x * y) \\ &= x * (z * y) \\ &= 1. \end{aligned}$$

Examples 4.1. Let $(Y; *, 1)$ be a BCL^+ algebra, the relation $x \leq y$ defined by $x \leq y$ if and only if $x * y = 1$ is a partial order on Y (or called the natural order on Y) with consider this order. 1 is the greatest element of Y . The set Y will be called the bounded if it has a smallest element 0. In this case, for $x \in Y$ we denote $\mathfrak{R}(x) = x * 0$.

Examples 4.2. Consider the every join-semilattice $(Y; \vee, 1)$ with greatest element 1; it is possible to define the structure of a BCL^+ algebra with supremum by considering the implication $*$ defined by the order, and that is $x * y = y$ if $x \not\leq y$, and $x * y = 1$ if $x \leq y$.