

# Boolean Lattice Structures on Weak Hyper *BCK*-ideals

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In this note, by considering the notion of weak hyper *BCK*-ideal of a hyper *BCK*-algebra, we study the lattice structure on the class of all weak hyper *BCK*-ideals. We show that the lattice of these ideals form a Boolean and geometric lattice, under suitable conditions. Finally, we consider the notion of pseudo complement and we prove that the algebra of all pseudocomplements of weak hyper *BCK*-algebra-ideals of a hyper *BCK*-algebra-algebra  $H$  is a Boolean lattice.