

Fuzzy hyper BCK-implicative ideals of hyper BCK-algebras

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Abstract

The fuzzification of (weak, strong, reflexive) hyper BCK-implicative ideals in hyper BCK-algebras is considered. It is shown that every fuzzy (weak, strong, reflexive) hyper BCK-implicative ideal is a fuzzy (weak, strong, reflexive) hyper BCK-ideal. We have discussed the properties of (fuzzy) weak hyper BCK-implicative ideals, (fuzzy) hyper BCK-implicative ideals, (fuzzy) strong hyper BCK-implicative ideals and (fuzzy) reflexive hyper BCK-implicative ideals and also their relations are given. Characterization of fuzzy (weak, strong, reflexive) hyper BCK-implicative ideals is given. The hyper homomorphic pre-image of a fuzzy (weak, strong, reflexive) hyper BCK-implicative ideal is discussed. Lastly the properties of product of fuzzy (weak, strong, reflexive) hyper BCK-implicative ideals are discussed.