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On some combinatorial aspects of transposition n-ary hypergroups

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ABSTRACT.

The aim of this research work is to define and characterize a new class of algebraic hyperstructures that we call weak transposition n-ary hypergroups. They are a generalization of transposition hypergroups, n-ary polygroups and join n-spaces. A subclass of weak transposition n-ary hypergroups is studied. Also, we prove that the class of weak transposition n-ary hypergroups with a unique scalar identity and the class of n-ary polygroups coincide.

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