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A Family of Nim-Like Arrays: The Locator Theorem

In the context of a certain family of Nim-like arrays which are recursively generated in a manner related to the operation of Nim-addition, we study a property we call the "locator property" which refers to a kind of self-referential relationship between entries and their indices. We prove that the locator property holds for almost all pairs of entries in six of the arrays in the family, and give computational evidence that this is not the case for other arrays in the family.