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Title: On a semiring variety satisfying $x^n \approx x$

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In this paper, we study the semiring variety determined by the additional identities $x^n \approx x$ and $x + (2^n - 2)xyx \approx x$. We give a decomposition theorem of semirings in this variety. Moreover, we characterize all subdirectly irreducible rings in this variety, and show that each subvariety of this variety is finitely based. This generalizes and extends the results of [1], [6], [7], [9], [13], [17] and [19].

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