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

**Author(s):** Aifa Wang and Yong Shao

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].

**Address:**

Aifa Wang  
School of Mathematics  
Northwest University  
Xi'an, Shaanxi, 710127  
P. R. China  
and  
School of Science  
Chongqing University of Technology  
Chongqing, 400054  
P. R. China

**Address:**

Yong Shao  
School of Mathematics  
Northwest University  
Xi'an, Shaanxi, 710127  
P. R. China