

## On the boundary of algebraic radicals in topological $(n,m)$ -semirings

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### ABSTRACT.

The aim of this paper is to investigate some properties for an ideal radical and an ideal radical boundary in a commutative Hausdorff topological  $(n, m)$ -semiring. We are going to give some generalizations of results due to Shum [Shum, K. P., *On the boundary of algebraic radicals in topological semigroups*, Acta Mathematica Acad. Scient. Hung., **25** (1974), No. (1-2), 15–19], Chow [Chow, H. L., *Remarks on boundaries in semigroups*, Period. Math. Hungar., **7** (1976), No. 2, 137–139] relative to semigroups and due Maria S. Pop [Pop, M. S., *On boundary in topological  $n$ -semigroups*, Mathematica, **22** (45) (1980), No. 1, 127–130] relative to  $n$ -semigroups.

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