

# PRODUCTIVE PROPERTY IN TOPOLOGICAL INVERSE SEMIGROUPS

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A topological space  $X$  is said to be *pseudocompact* if each locally finite family of nonempty open subsets of the space  $X$  is finite. The pseudocompactness is the property of topological space which is not even finitely multiplicative, but therewith it is the only property of topological groups preserved under multiplication of any number of factors having the corresponding property, the so-called Comfort-Ross theorem [1]. Ravsky generalized this result for paratopological groups: the product of a nonempty family of pseudocompact paratopological groups is pseudocompact [2].

A *topological inverse semigroup* is an inverse topological semigroup with continuous inversion. A topological inverse semigroup  $S$  is called *primitive* if  $S$  contains at least two distinct idempotents and for any distinct idempotents  $e, f$  of  $S$  the product  $ef$  is equal to the smallest idempotent of  $S$ . We extend the result of Comfort and Ross to the class of pseudocompact primitive topological inverse semigroups. Also we prove that the Stone-Čech compactification of a pseudocompact primitive topological inverse semigroup is a compact primitive one.

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## REFERENCES

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