

# Pseudocompact primitive topological inverse semigroups

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A non-trivial inverse semigroup is called a *primitive inverse semigroup* if all its non-zero idempotents are primitive. A semigroup  $S$  is a primitive inverse semigroup if and only if  $S$  is an orthogonal sum of Brandt semigroups [1]. In the paper [2] the structure of compact and countably compact primitive topological inverse semigroups was described and showed that any countably compact primitive topological inverse semigroup embeds into a compact primitive topological inverse semigroup.

In my talk I will describe the structure of pseudocompact primitive topological inverse semigroups and show that a Tychonoff product of a family of pseudocompact primitive topological inverse semigroups is a pseudocompact topological space.

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## References

- [1] M. Petrich, *Inverse Semigroups*, John Wiley & Sons, New York, 1984.
- [2] T. Berezovski, O. Gutik, K. Pavlyk, Brandt extensions and primitive topological inverse semigroups, *Int. J. Math. Math. Sci.* 2010, 2010, Article ID 671401, 13 pages, doi:10.1155/2010/671401.