

**On categories of pseudocompact topological Brandt λ^0 -extensions
of semitopological monoids**

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The main reason why Brandt λ^0 -extensions were introduced in addition to the Brandt λ -extensions is that λ -extensions are not preserved by homomorphisms. Since continuous homomorphic image of a Brandt λ^0 -extension is a Brandt λ^0 -extension of the homomorphic image of topological semigroup S the description of all non-trivial continuous homomorphisms between such topological extensions becomes possible thus enabling construction of categories. The aim of my talk is to construct categories of semiregular pseudocompact topological Brandt λ^0 -extensions of pseudocompact semitopological monoids and a full representative functor between them.