

**L. Karchevska, T. Radul**  
*On extension of functors*

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**Abstract:** A. Chigogidze defined for each normal functor on the category  $\text{Comp}$  an extension which is a normal functor on the category  $\text{Tych}$ . We consider this extension for any functor on the category  $\text{Comp}$  and investigate which properties it preserves from the definition of normal functor. We investigate as well some topological properties of such extension.

**Keywords:** Chigogidze extension of functors, 1-preimage preserving property

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REFERENCES

- [1] Banakh T., *Descriptive classes of sets and topological functors*, Ukrains. Mat. Zh. **47** (1995), 408–410.
- [2] Banakh T., Cauty R., *Topological classification of spaces of probability measures over coanalytic sets*, Mat. Zametki **55** (1994), 10–19 (Russian).
- [3] Banakh T., Klymenko M., Kucharski A., *On functors preserving skeletal maps and skeletally generated compacta*, in preparation.
- [4] Banakh T., Radul T., Zarichnyi M. *Absorbing Sets in Infinite-dimensional Manifolds*, VNTL Publishers, Lviv, 1996.
- [5] Camargo J., *The functor of nonexpanding functionals*, Rev. Integr. Temas Mat. **20** (2002), 1–12 (Spanish).
- [6] Chigogidze A., *On extension of normal functors*, Vestnik Moskov. Univ. Mat. Mekh. **6**, (1984), 23–26 (Russian).
- [7] Curtis D.W., Dobrowolski T., Mogilski J., *Some applications of the topological characterizations of the sigma-compact spaces  $l_2^f$  and  $\Sigma$* , Trans. Amer. Math. Soc. **284** (1984), 837–846.
- [8] Dobrowolski T., *The compact Z-property in convex sets*, Topology Appl. **23** (1986), 163–172.
- [9] Fedorchuk V., Zarichnyi M., *Covariant functors in categories of topological spaces*, Results of Science and Technics, Algebra. Topology. Geometry, vol. 28, 47–95 (Russian), Moscow, 1990.
- [10] Radul T., *On the functor of order-preserving functionals*, Comment. Math. Univ. Carolin. **39** (1998), 609–615.
- [11] Radul T., *On strongly Lawson and I-Lawson monads*, Bol. Mat. (N.S.) **6** (1999), 69–75.
- [12] Radul T., *On functional representations of Lawson monads*, Appl. Categ. Structures **9** (2001), 457–463.
- [13] Teleiko A., Zarichnyi M., *Categorical Topology of Compact Hausdorff Spaces*, VNTL Publishers, Lviv, 1999.
- [14] Shapiro L., *On operators of extension of functions and normal functors*, Vestnik Moskov. Univ. **1** (1992), 35–42 (Russian).
- [15] Schepin E., *Functors and uncountable powers of compacta*, Uspekhi Mat. Nauk **36** (1981), 3–62 (Russian).