HOMOTOPICALLY DENSE PROPERTIES OF THE ALEXANDROV COMPACTIFICATION OF SOME SUBSPACES OF THE SPACE OF PROBABILITY MEASURES

Zhuraev Tursunboy Faizievich,
Doctor of Physical and Mathematical Sciences, Acting Professor of the Department "General Mathematics" of the Tashkent State Pedagogical University named after Nizami.
e-mail: tursunzhuraev@mail.ru

Zhuvonov Kamariddin Rizokulovich,
Assistant, Department of "Higher Mathematics", Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, National Research University.
e-mail: qamariddin.j@mail.ru

Gaimnazarov Olimjon Gulmuratovich,
head of Head of the Department of "Mathematics", Associate Professor, Candidate of Pedagogical Sciences, Gulistan State University.
e-mail: g_olimjon@mail.ru

Anorboev Madamin Makhmud ugli,
Assistant of the Department of "Mathematics" Gulistan State University.
e-mail: madaminanorboyev254@gmail.com

Saitmuratov Ulmasbek Nurullo ugli,
Assistant of the department "Mathematics" Gulistan State University.
e-mail: Saitmuratovolmas@gmail.com

Abstract
In this paper, we consider topological and extensor properties of the one-point and Alexandrov compactification of αX for a locally compact space X, in the case of subspaces of the space $P(X)$ of all probability measures. Getting the following results:

1) $\alpha : LComp \to Comp$ is a covariant functor;

2) For any locally compact ANR space X its compactification αX takes place:

a) X is homotopy dense in αX;
b) the embedding of X in αX is a fine homotopy equivalence;
c) the set $C(Q, X)$ is everywhere dense in $C(X, \alpha X)$;

3) For any locally compact X space, X is ANR if and only if the compactification of αX is an ANR space.

4) The compactification αM of any $Q-$manifold M is the Hilbert cube Q i.e. $\alpha M;\ Q$.

5) For any infinite compact set X;

a) the compactification $\alpha(P(X)\setminus P(A))$ of the space $P(X)\setminus P(A)$ is homeomorphic to Q, where $A \subset X, A \neq X, \overline{A} = A$; those. $\alpha(P(X)\setminus P(A));\ Q$;

1. Aleksandryan R.A., Mirzakhanyan E.A. General topology, M. Vysshaya shkola 1979.336 p.
2. Bogaty S.A., Fedorchuk V.V. Retract theory and infinite-dimensional manifolds. Results of science and technology, Algebra, Topology. Geometry. T. 24. M. VINITI, 1986, p. 195-270.
3. Fedorchuk V.V. Probabilistic measures in topology Usp. Mat.nauk, 1991, V.46, No 1 (277), pp.41-80.
4. Banakh T., Radul T., Zarichny M. Absorbing sets in infinite - dimensional Manifolds, Math Studies Monogh. Ser. V.l. VNTL Publishers, 1996, p. 232.
5. Anderson R.D. On topological infinite deficiency Mich.Math. J.14, 1967, pp. 365-389.
6. Chapman T. Lectures on $Q-$manifolds M.Mir. 1981, 159 p.
7. Fedorchuk V.V., Filippov V.V. General topology. Basic structures. Moscow State University, 1988, 252 p.
8. Shchepin E.V. Functors and uncountable powers of compacta Uspekhi Mat. Sciences. Moscow, 1981. T.36. No. 3. From 3-62.
9. Zhuraev T.F. Some basic properties of the functor P_f // Bulletin of Moscow State University, ser. mech.-mat. No. 6. Moscow, 1988, p. 29-33.
11. Zhuraev T.F. The spaces of all probability measures with finite supports are homeomorphic to an infinite-dimensional linear space. M. MGU. 1989, General topology. Spaces and mappings, pp.66-70.
12. Zarichny M.M. Preservation of $ANR(M)$-space and infinite-dimensional manifolds by some covariant functors DANSSSR, V.271, no.3, 1983, pp.524-528.
13. Cakai K. Raymond Y. W. On infinite dimensional manifolds tpiples. Trans. amer. Math. soc. V.318, No. 2, 1990, pp. 545-555.
16. Jung-In K. Choi, Moo Na Woo UV^{∞}-maps that are fine homotopy equaivalences Topol.and its Application, 32, 1989, pp.61-67.
15. Raymond F. The endpoint compactification of manifolds Pacific J.Math. 19, 1960, pp. 947-963.
14. Sher R.B. Docility at infinity and compactifications of *ANR'S*. Trans. amer. Math. soc. V. 221, No. 1, 1976, pp. 213-224.