Luong Quoc Tuyen

Remarks on sequence-covering maps

Comment.Math.Univ.Carolin. 53,4 (2012) 645 -650.

Abstract: In this paper, we prove that each sequence-covering and boundary-compact map on g-metrizable spaces is 1-sequence-covering. Then, we give some relationships between sequence-covering maps and 1-sequence-covering maps or weak-open maps, and give an affirmative answer to the problem posed by F.C. Lin and S. Lin in [9].

Keywords: *g*-metrizable space, weak base, *sn*-network, compact map, boundary-compact map, sequence-covering map, 1-sequence-covering map, weak-open map, closed map **AMS Subject Classification:** 54C10, 54D65, 54E40, 54E99

References

- An T.V., Tuyen L.Q., Further properties of 1-sequence-covering maps, Comment. Math. Univ. Carolin. 49 (2008), no. 3, 477–484.
- [2] An T.V., Tuyen L.Q., On π-images of separable metric spaces and a problem of Shou Lin, Mat. Vesnik, (2011), to appear.
- [3] Arhangel'skii A.V., Mappings and spaces, Russian Math. Surveys 21 (1966), no. 4, 115–162.
- [4] Engelking R., General Topology (revised and completed edition), Heldermann Verlag, Berlin, 1989.
- [5] Franklin S.P., Spaces in which sequences suffice, Fund. Math. 57 (1965), 107–115.
- [6] Ge Y., Characterizations of sn-metrizable spaces, Publ. Inst. Math. (Beograd) (N.S) 74 (88) (2003), 121–128.
- [7] Lee K.B., On certain g-first countable spaces, Pacific J. Math. 65 (1976), no. 1, 113-118.
- [8] Lin F.C., Lin S., On sequence-covering boundary compact maps of metric spaces, Adv. Math. (China) 39 (2010), no. 1, 71–78.
- [9] Lin F.C., Lin S., Sequence-covering maps on generalized metric spaces, arXiv: 1106.3806.
- [10] Lin S., On sequence-covering s-mappings, Adv. Math. (China) 25 (1996), no. 6, 548–551.
- [11] Lin S., Point-Countable Covers and Sequence-Covering Mappings, Chinese Science Press, Beijing, 2002.
- [12] Lin S., Liu C., On spaces with point-countable cs-networks, Topology Appl. 74 (1996), 51–60.
- [13] Lin S., Yan P., Sequence-covering maps of metric spaces, Topology Appl. 109 (2001), 301– 314.
- [14] Lin S., Tanaka Y., Point-countable k-networks, closed maps, and related results, Topology Appl. 59 (1994), 79–86.
- [15] Liu C., On weak bases, Topology Appl. 150 (2005), 91–99.
- [16] Siwiec F., Sequence-covering and countably bi-quotient maps, General Topology Appl. 1 (1971), 143–154.
- [17] Siwiec F., On defining a space by a weak base, Pacific J. Math. 52 (1974), 233-245.
- [18] Xia S., Characterizations of certain g-first countable spaces, Adv. Math. 29 (2000), 61–64.
 [19] Yan P., Lin S., Point-countable k-networks, cs*-network and α₄-spaces, Topology Proc. 24 (1999), 345–354.
- [20] Yan P., Lin S., CWC-mappings and metrization theorems, Adv. Math. (China) 36 (2007), no. 2, 153-158.
- [21] Yan P.F., Lin S., Jiang S.L., Metrizability is preserved by closed sequence-covering maps, Acta Math. Sinica 47 (2004), no. 1, 87–90.