

Correction to the paper 'On coverings and continuous functions'

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Lemma 2 on page 34 is to be corrected as follows:

..., 2) ..., $z \notin S_1(\varepsilon x)$ and $u \in S_3(\varepsilon z)$ imply $u \notin S_2(\varepsilon x)$, 3) $\varphi(x, y) = \varphi(y, x)$.

The last part of the proof of Lemma 2 on page 35 is to be corrected as follows:

Let $U(x)$ be an arbitrary nbd of $x \in R$, then $S_n(x) \subseteq U(x)$ for some n . If $y \notin S_n(x)$, then $x \notin S_n(y)$, and hence $S_n^3(x) \cap S_n^1(y) = \phi$. Therefore $S_n^3(z) \cap S_n^2(y) = \phi$ for every $z \in S_n^3(x)$ and every $y \notin S_n(x)$, i. e. $z \in S_n^3(x)$ implies $S_n^3(z) \subseteq S_n(x)$. Choose m satisfying $m \geq n$ and $S_m(x) \subseteq S_n^3(x)$, then $x \in S_m^3(z)$ implies $z \in S_m(x) \subseteq S_n^3(x)$ and consequently $S_n^3(z) \subseteq S_m(x)$ because we can assume without loss of generality that $m \geq n$ implies $S_m^3(z) \subseteq S_n^3(z)$. Thus $\{S(x, \mathfrak{U}_n) \mid n=1, 2, \dots\}$ for $\mathfrak{U}_n = \{S_n^3(x) \mid x \in R\}$ is a nbd basis of x . Therefore R is metrizable from Alexandroff and Urysohn's theorem.

After the publishing of that paper we learned from K. Morita's paper, On the simple extension of a space with respect to a uniformity IV, Proc. Japan Acad. Vol. 27, No. 9 (1951) that even if a star-refinement of 2) was replaced by a delta-refinement, Corollary 9 was valid.