(2) Is a topological 2-sphere \( S \) in \( E^3 \) tame if corresponding to each point \( p \in S \) there are cones \( \gamma_1 \) and \( \gamma_2 \), each with vertex at \( p \), such that \( \gamma_1 - p \) and \( \gamma_2 - p \) lie on opposite sides of \( S \)?

Bibliography

1. R. H. Bing, A decomposition of \( E^3 \) into points and tame arcs such that the decomposition space is topologically different from \( E^3 \), Ann. of Math. (2) 65 (1957), 484-500.

University of Georgia

CORRECTION TO "A CHARACTERIZATION OF QF-3 ALGEBRAS"

HIROYUKI TACHIKAWA

J. P. Jans is kind enough to inform me a gap of Necessity proof in my paper appearing in these Proceedings, 13 (1962), 701-703. In this note I shall report Theorem 2 in the paper is however valid by a slight alteration of the proof. In p. 702, the argument between line 9 and line 18 should be replaced by the following: Let \( e_\lambda \) be a primitive idempotent of \( A \) such that \( l(N)e_\lambda \neq 0 \). Then there exists an element \( x \in L \) such that \( l(N)e_\lambda x \neq 0 \) for \( L \) is faithful. Denote \( x \) by \( \sum a_\lambda e_\lambda + a_\lambda e_\lambda \), \( a_\lambda , a_\lambda \in A \). Since \( e_\lambda (\sum a_\lambda e_\lambda ) \subseteq N, l(N)e_\lambda x = l(N)e_\lambda a_\lambda e_\lambda \) and we have \( l(N)e_\lambda L e_\lambda \neq 0 \). Here, suppose \( L e_\lambda \neq A e_\lambda \). Then \( L e_\lambda \subseteq Ne_\lambda \) for \( N e_\lambda \) is the unique maximal left ideal of \( A e_\lambda \) and it follows \( l(N)e_\lambda L e_\lambda \subseteq l(N)N = 0 \). But this is a contradiction. Thus we obtain \( L e_\lambda = A e_\lambda \). Now, let \( \theta \) be the epimorphism: \( L \rightarrow L e_\lambda (= A e_\lambda ) \), defined by \( \theta(x) = xe_\lambda \) for all \( x \in L \). Since \( L e_\lambda \) is projective, we have a direct sum decomposition of \( L: L_\lambda \oplus L'_\lambda \), where \( L_\lambda \approx A e_\lambda \). Then as \( \text{Hom}(L, K) \) is monomorphic to \( P \) and \( \text{Hom}(A e_\lambda, K) \) is injective, \( \text{Hom}(A e_\lambda, K) \) is isomorphic to a direct summand of \( P \). Thus if we denote by \( \Lambda \) the set of all indices \( \lambda \) such that \( l(N)e_\lambda \neq 0 \), \( \text{Hom}(\sum_{\lambda \in \Lambda} A e_\lambda, K) \) is projective.