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Pseudo-homotopies of the pseudo-arc

Abstract: Let X be a continuum. Two maps $g, h : X \to X$ are said to be pseudo-homotopic provided that there exist a continuum C, points $s, t \in C$ and a continuous function $H : X \times C \to X$ such that for each $x \in X$, $H(x, s) = g(x)$ and $H(x, t) = h(x)$. In this paper we prove that if P is the pseudo-arc, g is one-to-one and h is pseudo-homotopic to g, then $g = h$. This theorem generalizes previous results by W. Lewis and M. Sobolewski.

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