contractible

A continuum X is said to be *contractible* provided there is a homotopy $h : X \times [0,1] \to X$ such that for some point $p \in X$ we have $h(x,0) = x$ and $h(x,1) = p$ for each $x \in X$ (see e.g. [64, (16.2), p. 532]).

curve

A *curve* is any one-dimensional continuum.

cut point

Let $S, T)$ be a connected topological space, and let $p \in S$. If $S \setminus \{p\}$ is connected, then p is called a *non-cut point of* S. If $S \setminus \{p\}$ is not connected, then p is called a *cut point of* S.

C^*-smooth

Let X be a continuum. Define $C^* : C(X) \to C(C(X))$ by $C^*(A) = C(A)$. It is known that for any continuum X the function C^* is upper semi-continuous, [64, Theorem 15.2, p. 514], and it is continuous on a dense G_δ subset of $C(X)$, [64, Corollary 15.3, p. 515]. A continuum X is said to be *C^*-smooth at $A \in C(X)$* provided that the function C^* is continuous at A. A continuum X is said to be *C^*-smooth* provided that the function C^* is continuous on $C(X)$, i.e., at each $A \in C(X)$ (see [64, Definition 5.15, p. 517]).

cyclic element

Let a continuum X be locally connected and let $p \in X$. By a *cyclic element* of X containing p we mean either the singleton $\{p\}$ if p is a cut point or an end point of X, or the set consisting of p and of all points $x \in X$ such that no point of X cuts X between p and x, otherwise (see e.g. [78, Chapter 4, §2, p. 66]).

decomposable

a continuum X is said to be *decomposable* provided that X can be written as the union of two proper subcontinua.

deformation retract of

Let X be a space and let A and B be subspaces of X with $A \subset B$. Then A is called a *deformation retract of* B over X provided that the identity mapping