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Remarks on embeddability of products and on embeddability of cones into Euclidean spaces

Abstract. In an old paper I showed that if a locally connected continuum embeddable in \mathbb{R}^3 is a Cartesian product of non-trivial topological factors, then one of the factors is an arc or a simple closed curve. If one of the factors is a simple closed curve then the other is flat, if it is an arc then with the triviality of the first and the second Cech cohomology groups, the other factor has to be flat. This result was generalized by R.Cauty. If a locally connected continuum $X \times I^{n-2}$, where n > 3, is embeddable into *n*-manifold then X is locally flat. In 1993 I published a Theorem: If X is locally connected continuum and its cone CX is embeddable in \mathbb{R}^3 then X is embeddable in S^2 . We can generalize this result : If $\mathbb{C}^n X$ is embeddable into \mathbb{R}^{n+2} then X is embeddable into S^2 . D.Repove together with A.Skopenkov and E.Scepin investigated similar problems.