



A THEOREM OF VAN KAMPEN TYPE FOR PSEUDO PEANO CONTINUUM SPACES

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Abstract

Conner and Eda [Topology and its Applications 146 (2005), 317-328] introduced a new construction of spaces from groups. They remarked that the construction is not categorical. In this paper, based on the work of Conner and Eda we construct two new categories for which the functor of fundamental group π , has a right adjoint and consequently the functor π is right exact and preseves direct limits. Also we study the behavior of the functor π on quotient spaces and give a new version of Van Kampen theorem for join of spaces in the new categories.

1. Introduction and Motivation

Eda [3] proved that if X and Y are one-dimensional, locally path connected, path connected, metric spaces which are not semilocally simply connected at any point and have isomorphic fundamental groups, then X and Y are homeomorphic.

Conner and Eda [1] based on the above fact proposed a new construction of a space from a group and showed that this construction arises from the fundamental group of a space of the above type and it is homeomorphic to the

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