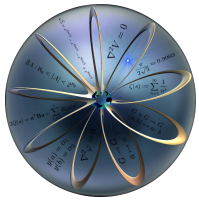

planetmath.org

Math for the people, by the people.

generalized Hurewicz fundamental theorem

Canonical name	GeneralizedHurewiczFundamentalTheorem
Date of creation	2013-03-22 18:14:31
Last modified on	2013-03-22 18:14:31
Owner	bci1 (20947)
Last modified by	bci1 (20947)
Numerical id	13
Author	bci1 (20947)
Entry type	Theorem
Classification	msc 18G30
Classification	msc 55U10
Classification	msc 57N60
Classification	msc 57Q12
Classification	msc 54D05
Classification	msc 54A05
Classification	msc 57Q05
Classification	msc 54D05
Synonym	general Hurewicz Theorem
Related topic	CWComplex
Defines	extended Hurewicz Fundamental Theorem

1 Generalized Hurewicz fundamental theorem

The Hurewicz theorem was generalized from connected CW-complexes to arbitrary topological spaces [**?**] and is stated as follows.

Theorem 1.1. *(*Generalized Hurewicz Fundamental Theorem.*)*

If $\pi_r(K, L) = 0$ for $1 \leq r \leq n$, $(n \geq 2)$, then $h_\pi : \pi_n^*(K, L) \simeq H_n(K, L)$, where π_n are homotopy groups, H_n are homology groups, K and L are arbitrary topological spaces, and '$\simeq$' denotes an isomorphism.

References

[1] Spanier, E. H.: 1966, *Algebraic Topology*, McGraw Hill: New York.