

LS-CATÉGORIE DE CW-COMPLEXES À 3 CELLULES EN THÉORIE HOMOTOPIQUE R -LOCALE

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Abstract

We study the Lusternik-Schirelmann category of some CW-complexes with 3 cells, built on $Y = S^{2n} \cup_{k[\iota_{2n}, \iota_{2n}]} e^{4n}$. In particular, we prove that an R -local space, in the sense of D. Anick, of LS-category 3 and of the homotopy type of a CW-complex with 3 R -cells, has a cup-product of length 3 in its algebra of cohomology. This result is no longer true in the framework of mild spaces.

Keywords. Lusternik-Schirelmann category, CW-complex.
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