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Bounded cohomology of certain groups of homeomorphisms. (English) Zbl 0536.57023
Proc. Am. Math. Soc. 94, 539-544 (1985).

The authors consider relations among bounded cohomology, ℓ^1 homology and ordinary real cohomology of spaces or groups. They present in particular a necessary and sufficient condition for bounded cohomology to inject into ordinary cohomology and by using it they prove the vanishing of bounded cohomology and ℓ^1 homology of $Homeo_k(\mathbb{R}^n)$, the group of all the homeomorphisms of \mathbb{R}^n with compact supports. They also determine the second bounded cohomology of $SL_2\mathbb{R}$.

MSC:

57T20 Homotopy groups of topological groups and homogeneous spaces
55N99 Homology and cohomology theories in algebraic topology
20J05 Homological methods in group theory
58D05 Groups of diffeomorphisms and homeomorphisms as manifolds

Cited in **23** Documents

Keywords:

ℓ^1 homology; real cohomology of groups; bounded cohomology of the group of homeomorphisms of real n-space with compact support; bounded cohomology of $SL(2,\mathbb{R})$

Full Text: [DOI](#)

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