ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

7. Lie Groups and Lie Algebras

1991 MS Classification: 22E65 Infinite-dimensional Lie groups and their Lie algebras

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Fifth Hilbert problem and infinite-dimensional P-groups

Theorem 1. The group of all increase homeomorphisms of the segment [0,1] into itself with compact-open topology is local homeomorphic to some P-space, but isnt P-group. So, we have negative solution of Fifth Hilbert problem for infinite-dimensional case. Theorem 2. Local topological group G is localy isomorphic to some P - group if and only if there is the local topological "canonical" embedding of G into neighborhood of zero of some P-space.

References: B. S. Khots, Groups of Local Analytical Homeomorphisms of Line and P-groups, Russian Math. Surveys, v.33, #3(201),189-190, Moscow, London,1978. B. S. Khots, Abstracts of papers presented to the American Mathematical Society, v.17##3,4,1996; v.18#2,1997; v.19#2,1998.