

Shavgulidze, E. T.

On a measure that is quasi-invariant with respect to the action of a group of diffeomorphisms of a finite-dimensional manifold. (English. Russian original) [Zbl 0704.58010](#)

Sov. Math., Dokl. 38, No. 3, 622-625 (1989); translation from *Dokl. Akad. Nauk SSSR* 303, No. 4, 811-814 (1988).

A countably additive Borel measure on the group $Diff^{2k}(M)$ of diffeomorphisms of class C^{2k} on an n -dimensional manifold M is constructed which is quasi-invariant with respect to the action of the subgroup $Diff_0^{2k+3m}(M)$ consisting of the C^{2k+3m} -diffeomorphisms with compact support. Here m is an integer greater than $(n+1)/2$ and $k > 3mn$.

Reviewer: [A.Kriegel](#)

MSC:

- 58D20 Measures (Gaussian, cylindrical, etc.) on manifolds of maps
- 28C10 Set functions and measures on topological groups or semigroups, Haar measures, invariant measures
- 58D05 Groups of diffeomorphisms and homeomorphisms as manifolds

Cited in **2** Reviews
Cited in **7** Documents

Keywords:

group of diffeomorphisms; Borel measure