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The C^*-algebras of codimension one foliations without holonomy. (English) Zbl 0581.46057

Math. Scand. 56, 96-104 (1985).

Let $\mathcal{F}$ be a codimension one folitation without holonomy on a closed manifold M. To (M,$\mathcal{F}$) is associated an action α of a free Abelian group $\mathbb{Z}^k$ on the circle S^1. This action is called the Novikov transformation of (M,$\mathcal{F}$). The main result is that the C^*-algebra $C^*(M,\mathcal{F})$ of (M,$\mathcal{F}$) is stably isomorphic to the crossed product $C(S^1) \rtimes_\alpha \mathbb{Z}^k$.

MSC:

46L55	Noncommutative dynamical systems
46M20	Methods of algebraic topology in functional analysis (cohomology, sheaf and bundle theory, etc.)
57R30	Foliations in differential topology; geometric theory
46L30	States of selfadjoint operator algebras

Keywords:

codimension one folitation without holonomy on a closed manifold; free Abelian group; Novikov transformation; C^*-algebra; stably isomorphic to the crossed product

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