A class of mixing special flows over two-dimensional rotations. (English summary)


In this work the authors build on and extend earlier work concerning the mixing property of special flows over rotations on tori. The main result is the following. Let $f: \mathbb{T}^2 \to \mathbb{R}$ be a pointwise $C^2$ roof function that satisfies the condition

$$\left( \int_{\mathbb{T}^2} f_x(x, y) \, dxdy \right) \left( \int_{\mathbb{T}^2} f_y(x, y) \, dxdy \right) \neq 0.$$


References

7. B. Host, Mixing of all orders and pairwise independent joinings of systems with singular spectrum, Israel J. Math., 76 (1991), 289–298. MR1177346
12. A. V. Kochergin, Mixing in special flows over a rearrangement of segments and in smooth flows on surfaces, (Russian) Mat. Sb., 96(138) (1975), 471–502, 504. MR0516507

Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.

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