Nondegenerate saddles, and the absence of mixing. (Russian)

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In a previous paper [Mat. Sb. (N.S.) 96 (138) (1975), 471–502] the author demonstrated the mixing property for a smooth ergodic flow, preserving a smooth positive invariant measure, on a surface of genus $p \geq 1$, and having only degenerate fixed points satisfying a regularity condition. In this paper the author considers a class of $C^3$ flows on orientable surfaces with nondegenerate fixed points which are proved to be not mixing. The first part of the paper is concerned with a sufficient condition for a special flow to be not mixing. This result is then applied in the second section to some special flows over rotations of the circle and finally, in section three, it is shown that the flows in question are in fact isomorphic to special flows over rotations of the form considered in section two.


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