

## Nonwandering set of skew products on multidimensional cells and $\Omega$ -blow up in the family of fibers maps

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The structure of the nonwandering set of skew products of interval maps on multidimensional cells is studied. The influence of the  $\Omega$ -blow ups in the family of fiber maps on the structure of the nonwandering set of a skew product is clarified [2].

Let  $I^n$  be  $n$ -dimensional cell ( $n \geq 2$ ), and

$$F(x_1, \dots, x_n) = (f_1(x_1), f_2(x_1, x_2), \dots, f_n(x_1, \dots, x_n))$$

be a skew product with the phase space  $I^n$ .

A map  $F: I^n \rightarrow I^n$  is said to be a *simplest* if the set of least periods of its periodic points is bounded.

**Theorem.** *Let  $F$  be a simplest continuous skew product on a cell  $I^n$ ,  $n \geq 2$ . Then the nonwandering set of  $F$  coincides with the set of its periodic points.*

This result finds applications, in particular, in the study of limit sets [2] and in the description of the  $\Omega$ -blow up phenomenon in the  $C^0$ -norm in smooth simplest skew products on multidimensional cells [1].

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## References

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