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Review text:

Let $n > 1$ be an integer and let $n = p_{i_0}^{l_0} p_{i_1}^{l_1} \dots p_{i_m}^{l_m}$ where the p_{i_h} are prime numbers, with $i_0 < i_1 < \dots < i_m$, $l_j \in \mathbb{N} \setminus \{0\}$, for any $j \in [0, m]$. The authors construct a one-sided cellular automaton $(B_n^{\mathbb{N}}, F_n)$ of radius $r = 1$ (where $B_n^{\mathbb{N}}$ is the set of all right-infinite words over an alphabet B_n of $(2p_{i_0})^{l_0}(2p_{i_1})^{l_1} \dots (2p_{i_m})^{l_m}$ elements and $F_n : B_n^{\mathbb{N}} \to B_n^{\mathbb{N}}$ denotes the global transition function) with the following properties

- it has no fixed points,
- has a continuum of periodic points with period 2,
- has topological entropy $h = \log n > 0$,
- has a dense set of strictly temporally periodic points,
- has a dense set of jointly periodic points,
- is topologically mixing,
- is open and strongly transitive

The proof of the above statements constitutes the main result (Theorem 8.1) of the work under review. The presentation draws heavily on previous material by the authors and, as mentioned by them, familiarity with their earlier papers [J. Cell. Autom. 9 (2014), no.1 37-58; MR3222488] and [Entropy 16 (2014) no. 11, 5601-5617; MR3222488] is required to understand the proof.

Reviewed by Vladimir García-Morales