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Exchanged toric tilings, Rauzy substitution, and bounded remainder sets. (English. Russian original) [Zbl 1387.11052](#)

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Summary: This paper is devoted to the two-dimensional problem of the distribution of the fractional parts of a linear function. A new class of tilings of the two-dimensional torus into bounded remainder sets with an effective estimate of the remainder is introduced. It is shown that examples of the tilings under consideration can be obtained by using the geometric version of the Rauzy substitution.

MSC:

- [11J71](#) Distribution modulo one
- [11H06](#) Lattices and convex bodies (number-theoretic aspects)
- [37B10](#) Symbolic dynamics
- [37B50](#) Multi-dimensional shifts of finite type, tiling dynamics (MSC2010)

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Keywords:

exchanged toric tiling; Rauzy substitution; bounded remainder set; distribution of the fractional parts of a linear function; fractal set; Rauzy fractal; Rauzy tiling; tribonacci sequence

Full Text: [DOI](#)

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