

**Arnold, V. I.**

**Higher dimensional continued fractions.** (English) Zbl 1044.11596  
Regul. Chaotic Dyn. 3, No. 3, 10-17 (1998).

Summary: The higher-dimensional analogue of a continued fraction is the polyhedral surface, bounding the convex hull of the semigroup of the integer points in a simplicial cone of the Euclidean space. The article describes some conjectures and theorems, extending to such higher-dimensional continued fraction the Lagrange theorem on quadratic irrationals and the Gauss-Kuzmin statistics.

**MSC:**

[11J70](#) Continued fractions and generalizations  
[13A99](#) General commutative ring theory  
[11A55](#) Continued fractions  
[52B70](#) Polyhedral manifolds

Cited in **20** Documents

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