

1024-52-211

Shunji Ito*, ito@t.kanazawa-u.ac.jp. *Tilings generated by non-Pisot companion matrices.*

Starting from the unimodular Pisot matrix $A \in GL(d, \mathbb{Z})$, there are many articles about how we obtain the polygonal/self-affine quasi-periodic tilings on the $(d-1)$ -dimensional A -contracting invariant space. Moreover, using the tilings, we know how to construct the Markov partition of the group automorphism $T_A : T^d \rightarrow T^d$. In this talk, we will try to extend the above results to the non-Pisot hyperbolic matrix $A \in GL(4, \mathbb{Z})$. (Received January 09, 2007)