DENSITY OF SHAPES OF PERIODIC TORI IN THE CUBIC CASE

Nguyen-Thi Dang

ABSTRACT

Compact orbits of the Weyl chamber flow in $\mathrm{SL}(3,\mathbb{R})/\mathrm{SL}(3,\mathbb{Z})$ are immersions of flat tori of dimension 2. In a joint work with Nihar Gargava and Jialun Li, we prove that up to rescaling, these shapes are dense in the space of modules of flat tori. The dense family of shapes is extracted from some specific orders and their suborders.