ANTOINE POULIN, McGill

Borel complexity of Archimedean orders on finitely generated group

We present results on the Borel complexity of the action of $GL_2(\mathbb{Z})$ on the Archimedean orders of $\mathbb{Z}^2$. This mimics a result of F. Calderoni, A. Shani, D. Marker and L. Motto Ros for $\mathbb{Q}^2$. We discuss possible generalizations to different groups, including for intermediate rings $\mathbb{Z} \subset R \subset \mathbb{Q}$ and $\mathbb{Z}^n$.