CLAIRE BURRIN, ETH Zurich

Higher moment formulas for discrete lattice orbits in the plane

We consider discrete sets in the plane arising from the linear action of a lattice in $\mathrm{SL}_2(\mathbb{R})$. The set of primitive integers vectors (i.e., where the coordinates are coprime) is one such example. In a very different direction, the set of holonomy vectors of saddle connections on a square-tiled surface provides another example. How are such discrete planar sets distributed in the plane ? I will report on on-going work with Samantha Fairchild.