

Large time asymptotics for a particle system

Jeffrey Kuan

California Institute of Technology

June 3, 2009

Abstract.

We use the representation theory of the infinite-dimensional orthogonal group to analyze the large time asymptotics of an interacting system of particles in the two-dimensional lattice with a reflecting wall. The admissible configurations of particles can also be interpreted as lozenge tilings of the quarter plane or as stepped surfaces.