

**Hans Koch**

The University of Texas at Austin, USA

koch@math.utexas.edu

We consider the asymptotic properties of matrix products that appear in the study of the Hofstadter model (of an electron moving on a lattice) and the associated almost Mathieu operators. In a restricted setup that is characterized by a symmetry, we show that critical behavior occurs and is universal in an open neighborhood of the almost Mathieu family. This behavior is governed by a periodic orbit of a renormalization transformation. Other periodic orbits govern supercritical behavior.