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Yitwah Cheung, Arek Goetz and **Anthony Quas***, Dept of Math and Stats, Victoria, BC
V8W 3R4, Canada. *Lattices, Uniform Distribution and $3 \log 2 - \pi^2/8$* . Preliminary report.

We consider a simple family of piecewise isometric dynamical systems. While there are few tools available for this class of systems, we use elementary techniques and derive some surprising conclusions. We also raise a number of open questions concerning the limiting density of quasi-periodic regions in the plane. (Received August 16, 2010)