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Joanna Furno* (jfurno@wesleyan.edu). *A measure-preserving transformation on the p -adic numbers.*

For a fixed prime p , the p -adic numbers are a locally compact group with an infinite Haar measure. We give a piecewise definition of an invertible transformation on \mathbb{Q}_p that preserves Haar measure. The transformation also has a description as a Kakutani skyscraper, where the towers fit naturally into the spheres of \mathbb{Q}_p . We describe the topological and ergodic properties of this transformation. (Received September 09, 2014)