

1138-37-211

Anton Lukyanenko* (alukyane@gmu.edu) and **Joseph Vandehey**. *Ergodicity of Iwasawa continued fractions via markable geodesics*. Preliminary report.

Continued fractions in \mathbb{R} have a well-studied connection to both dynamical systems and hyperbolic geometry. We describe a broad framework of higher-dimensional *Iwasawa continued fractions* that retains both of these connections, and corresponding markings on “markable” geodesics in the associated hyperbolic geometry. Building a section for markable geodesics, we obtain ergodicity for geometrically complete Iwasawa continued fractions, which include most one-dimensional continued fraction algorithms and certain variants of both the Hurwitz complex continued fractions and Heisenberg continued fractions. (Received February 09, 2018)