1145-11-1684 **Joseph A. Vandehey*** (`vandehey.1@osu.edu`) and **Anton Lukyanenko**. *Iwasawa continued fractions and higher-dimensional hyperbolic spaces.*

We explore the classical connection between real continued fractions and geodesics on the hyperbolic upper-half plane, and how this connection may be extended to higher dimensions. We obtain an explicit connection, via a cross-section for geodesic flow, for many new systems. This includes a connection between complex continued fractions and three-dimensional real hyperbolic space, as well as quaternionic continued fractions and five-dimensional real hyperbolic space, among many others. (Received September 23, 2018)