

1030-37-354

Svetlana Katok* (katok_s@math.psu.edu), Department of Mathematics, The Pennsylvania State University, University Park, PA 16802. *Reduction theory and coding of geodesics*. Preliminary report.

I will discuss new types of continued fractions that can be used for coding of geodesics on the modular surface, and their generalizations for Fuchsian groups. I will also give a dynamical interpretation of the "reduction theory" which underlines these constructions and its relation to an attractor of a certain associated natural extension map. This is a work in progress with Ilie Ugarcovici and Don Zagier. (Received August 06, 2007)