

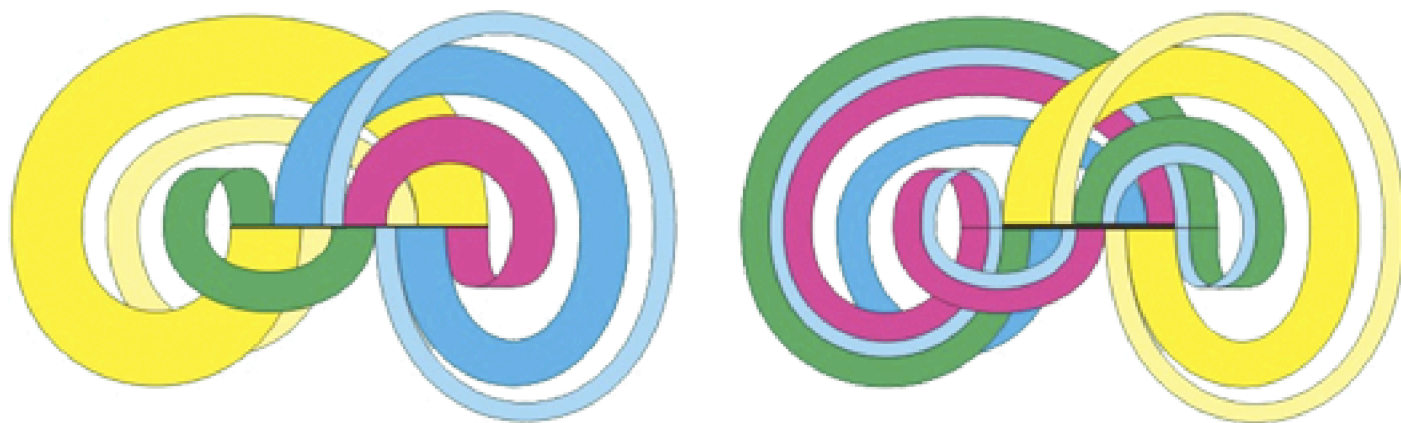
The Oliver Club

www.math.cornell.edu/~oliver/

Alexander Bufetov, Rice University

Translation Flows and Vershik's Automorphisms

Flat surfaces are Riemann surfaces endowed with a zero curvature metric with singularities. Translation flows on such surfaces are closely related to the geodesic flow. Translation flows are generically ergodic (Howard Masur, William Veech, 1982). For ergodic systems time averages of integrable functions converge to their space average. The rate of convergence is an important characteristic of a dynamical system. The main result of the talk yields an asymptotics of this rate of convergence for translation flows. These results extend earlier work of Anton Zorich and Giovanni Forni; the approach is close in spirit to that of Giovanni Forni.



The proof uses methods of symbolic dynamics. The main tool is a special class of automorphisms introduced by Anatoly M. Vershik in 1982. (Note also the 1977 work of Shunji Ito).

Thursday, November 6, 2008
at 4:25 PM in 406 Malott Hall

Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).