PERIODIC DATA AND RIGIDITY FOR ANOSOV DIFFEOMORPHISMS

BORIS KALININ

We consider transitive Anosov diffeomorphisms for which every periodic orbit has only one positive and one negative Lyapunov exponent. We show such systems have strong strong properties including pinching, $C^{1+\beta}$ smoothness of the Anosov splitting, and C^1 smoothness of measurable invariant conformal structures and distributions. We apply these results to obtain some global and local rigidity results. Joint work with Victoria Sadovskaya.