

1095-37-121

**Anushaya Mohapatra\*** (mohapatr@math.uh.edu) and **William Ott**. *Rank one dynamics near heteroclinic cycles.*

Identifying mechanisms that produce nonuniform hyperbolicity and proving that nonuniform hyperbolicity is present in concrete models remain major challenges. We discuss the emergence of nonuniformly hyperbolic dynamics when certain flows with heteroclinic cycles are subjected to time-periodic forcing. In particular, we show the emergence of SRB measures and rank one chaos that is both sustained in time and physically observable. Heteroclinic cycles have been studied extensively in connection with dynamics on networks and systems possessing symmetries. Our results are independent of symmetry considerations: they apply in the presence of symmetries and in the absence of symmetries. (Received September 07, 2013)