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Skyler C Simmons*, 275 TMCB, Brigham Young University, Provo, UT 84602. *Invariant Sets of Hyperbolic Toral Automorphisms.*

Recently, open dynamical systems, which present the possibility of orbits "falling out" of the system and contributing nothing to the overall dynamics, have been gaining attention. Open systems in billiards have been the prototypical example. In this presentation, we consider open systems for hyperbolic toral automorphisms, and present results related to cardinality, connectivity, and dimension. These results are extended to general Anosov maps whenever possible. (Received September 19, 2011)