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Caleb Moxley* (ccmoxley@bsc.edu), Birmingham-Southern College, 900 Arkadelphia Road, Birmingham, AL 35209. *Bounds for the topological entropy of a billiard flow.*

We construct bounds for the topological entropy of a billiard flow on the 3-D flat torus with two orthogonal, intersecting toroidal scatterers. The bounds are the consequence of inner and outer radial estimates of the homotopical rotation set of the billiard flow, its fundamental group, and a construction of a subset of the homotopical rotation set consisting of admissible trajectories. These admissible trajectories are constructed using the length minimizing variational method. (Received February 11, 2018)