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Jing Zhou* (jingzhou@umd.edu), Department of Mathematics, University of Maryland, 4176
Campus Drive, College Park, MD 20742. *A Rectangular Billiard with Moving Platforms.*

We describe an exponential Fermi accelerator in a two-dimensional billiard with moving platforms. We have found a mechanism of trapping regions which provides the exponential acceleration for almost all initial conditions with sufficiently high initial energy. Under an additional hyperbolicity assumption, we estimate the waiting time after which most high-energy orbits start to gain energy exponentially fast. (Received January 09, 2020)