Mark Levi*, Mathematics Department, Penn State, University Park, PA 16802, and Sergei Tabachnikov and Robert Foote. Bike tracks, symplectic group and forced pendula.

In this talk I will describe will describe a connection between the objects mentioned in the title. This talk is based on our joint work with Sergei Tabachnikov, Robert Foote and Warren Weckesser. (Received August 31, 2009)