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Ilya Kofman*, ikofman@math.csi.cuny.edu, and **Joan Birman**, jb@math.columbia.edu. *Lorenz and horseshoe knots*. Preliminary report.

The Lorenz flow is the prototypical chaotic dynamical system with a “strange attractor”. Lorenz knots are periodic orbits in the Lorenz flow on R^3 . Horseshoe knots are periodic orbits in the flow on R^3 given by the suspension of Smale’s horseshoe map. In this talk, I will provide some background, and discuss some surprising relationships between these knots and the simplest hyperbolic knots. (Received August 23, 2012)