1056-11-1794   **Jang-Woo Park*** (`jpark@clemson.edu`), Department of Mathematical Sciences, O-3 Martin Hall, Clemson University, Clemson, SC 29634-0975, and **Shuhong Gao** (`sgao@clemson.edu`), Department of Mathematical Sciences, O-301 Martin Hall, Clemson University, Clemson, SC 29634-0975. *Dynamics of f(x) = x+1/x via Elliptic Curves.*

Understanding dynamics of nonlinear maps is an important but difficult, and there are not many methods available. In this talk, we study the dynamics of a simple function, f(x) = x + 1/x, on fields of characteristic two. The main idea is to lift the dynamics of an isogeny on an elliptic curve and study the dynamics of the isogeny on the curve. (Received September 22, 2009)