1056-Z1-636   **Christopher S Frayer*** (`frayerc@uwplatt.edu`), University of Wisconsin-Platteville, Math Department, Platteville, WI 53818. *Polynomial Root Motion.*

A polynomial is determined by its roots and its leading coefficient. If you set the roots in motion, the critical points will move too. Using only tools from the calculus sequence, we'll find an inverse square law that determines the velocities of the critical points in terms of the positions and velocities of the roots. (Received September 15, 2009)