1095-11-135 **John R. Doyle*** (jdoyle@math.uga.edu), Department of Mathematics, University of Georgia, Athens, GA 30602. *Preperiodic points for quadratic polynomials, II.*

In this sequel to David Krumm's talk, I will describe some of the results we've obtained in our joint work with Xander Faber. Our main questions are the following: First, given a quadratic extension K of the rational numbers, and given a quadratic polynomial $f(z)$ defined over K, how large can the set of K-rational preperiodic points for $f(z)$ be? Second, what sort of structure can this set have as a directed graph? These questions were motivated by work of Poonen, who studied the same question over the rationals. I will give an overview of our methods, and I will discuss the progress we've made toward answering the main questions. (Received September 06, 2013)