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David Krumm* (dkrumm@cmc.edu). *Preperiodic points for quadratic polynomials, I.*

This is the first in a series of two talks in which John Doyle and I will give an overview of a project in arithmetic dynamics that we've developed jointly with Xander Faber. In this talk I will explain the uniform boundedness conjecture of Morton and Silverman, the particular case of this conjecture studied by Poonen, and the main questions we wish to answer in our project. These questions were motivated by a large gathering of data which required new algorithms in algebraic number theory, so I will briefly explain our methods. (Received August 28, 2013)