

ALGEBRA
SEMINAR

*Rational and quadratic preperiodic points for quadratic
polynomials*

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Abstract: Let f be a quadratic polynomial with coefficients in a number field K . The action of f on the affine line induces a dynamical system. Many researchers have speculated on and provided evidence for uniform bounds on the number of K -rational points with finite orbit under this action: such points are called preperiodic. I will survey what is expected and what is known, and then I will describe some new contributions by myself and my collaborators John Doyle and David Krumm when $K=\mathbb{Q}$ or when K is a quadratic number field.

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MATHEMATICS AND COMPUTER SCIENCE
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