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James Ricci* (jricci@wesleyan.edu), Department of Mathematics and Comp. Sci., Science Tower 655, 265 Church Street, Middletown, CT 06459. *Finiteness results for regular ternary quadratic polynomials*. Preliminary report.

Any quadratic polynomial can be written in the form $f(x) = Q(x) + l(x) + c$ where Q is a quadratic form, l is a linear form, and c is a constant; it is called regular if it represents all the integers which are represented locally by the polynomial itself over \mathbb{Z}_p for all primes p . Given a positive definite Q , we can associate certain types of quadratic polynomials to a coset of a \mathbb{Z} -lattice in order to view quadratic polynomials through the geometric perspective of quadratic spaces and lattices. In this talk we will define an invariant called the conductor, a notion of a semi-equivalence class of a regular quadratic polynomial and present our result: Given a fixed conductor, there are finitely many semi-equivalence classes of primitive regular integral quadratic polynomials in three variables. (Received September 08, 2013)