

1108-11-130

**Lubjana Beshaj\*** ([beshaj@oakland.edu](mailto:beshaj@oakland.edu)). *Reduction of binary forms.*

We give an introduction to the reduction theory of binary forms starting with quadratic forms with real coefficients, Hermitian forms, and then define the Julia quadratic for any degree  $n$  binary form. We develop a reduction algorithm for any degree  $n$  binary form with coefficients in some algebraic number field  $K$ , based on classical work of Hermite, Julia, and more recent work of Cremona and Stoll. The reduced form has minimal absolute height. (Received January 07, 2015)