

## Regulators and Mahler measure

Marie José BERTIN

### Abstract

After Deninger's guess concerning the explicit logarithmic Mahler measure of the Laurent polynomial  $x + \frac{1}{x} + y + \frac{1}{y} + 1$ , Boyd formulated a lot of conjectures. These conjectures enlighten the link between the logarithmic Mahler measure of a certain class of polynomials in 2 variables defining elliptic curves and their  $L$ -series. We shall explain the role of Regulators in the proof of two of these conjectures.