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The Mahler measure of triangular polynomials

The Mahler measure of a Laurent polynomial P is defined as the integral of $\log |P|$ over the unit torus with respect to the Haar measure. For multivariate polynomials, it often yields special values of L -functions. In this talk we will consider the Mahler measure of polynomials of the form $a(x) + b(x)y + c(x)z \in \mathbb{C}[x, y, z]$ where $a(x), b(x), c(x)$ are products of cyclotomic polynomials. We will exhibit the variety of these formulas, that could range from $\zeta(3)$ and dilogarithms to $L(E, 3)$ (the L -function of an elliptic curve). This talk includes joint works with Jarry Gu and Siva Sankar Nair.