

On Complex Explicit Formulae Connected with the Möbius Function of an Elliptic Curve

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Abstract. We study analytic properties function $m(z, E)$, which is defined on the upper half-plane as an integral from the shifted L -function of an elliptic curve. We show that $m(z, E)$ analytically continues to a meromorphic function on the whole complex plane and satisfies certain functional equation. Moreover, we give explicit formula for $m(z, E)$ in the strip $|\Im z| < 2\pi$.