

**BEHAVIOR OF ARITHMETIC INVARIANTS
FOR A CLASS OF ELLIPTIC CURVES
IN CYCLOTOMIC Γ -EXTENSIONS***I. S. Rakhimov*

We study the behavior of the main arithmetic invariants of elliptic curves with complex multiplication in cyclotomic Γ -extensions. We consider the curves of CM-type which are defined over the field of rational numbers and possess nondegenerate nonsupersingular reduction modulo a prime p , where $p \neq 2$.

Key words and phrases: elliptic curve, arithmetic invariants, Γ -extension, the Tate module.

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