

A VARIATION OF SERRE'S CYCLICITY CONJECTURE

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ABSTRACT. Let E be an elliptic curve defined over rational numbers. Serre's cyclicity conjecture states that the density of primes p for which the group of $\mathbb{F}_p$ rational points of the reduction of E modulo p is cyclic exists, and is positive if and only if 2-division field of E is non-trivial. In this talk we will investigate the cyclicity of the group of $\mathbb{F}_p$ - rational points of the reduction of E modulo p where p is taken from a fixed arithmetic progression.