

Analytic problems for elliptic curves

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Abstract. We consider some problems of analytic number theory for elliptic curves which can be considered as analogues of classical questions around the distribution of primes in arithmetic progressions to large moduli, and to the question of twin primes. This leads to some local results on the distribution of the group structures of elliptic curves defined over a prime finite field, exhibiting an interesting dichotomy for the occurrence of the possible groups.

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