## Algebra Seminar

Bounded gaps between primes in Chebotarev sets

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Abstract: A new and exciting breakthrough due to Maynard establishes that there exist infinitely many pairs of primes  $p_1, p_2$  with  $|p_1 - p_2| \leq 600$  as a consequence of the Bombieri-Vinogradov Theorem. In this paper, we apply their general method to the setting of Chebotarev sets of primes. We study applications of these bounded gaps with an emphasis on ranks of prime quadratic twists of elliptic curves over  $\mathbb{Q}$ .

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