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**ANUP DIXIT**, Queen's University

*On Ihara's conjecture and primes in arithmetic progressions*

As a natural generalization of Euler-Mascheroni constant  $\gamma$ , Ihara introduced the Euler-Kronecker constant  $\gamma_K$  attached to a number field  $K$ . He conjectured that for cyclotomic fields  $\mathbb{Q}(\zeta_n)$ , this constant is always positive. In this talk, we will discuss a connection of this conjecture with the oscillation of error terms in the prime number theorem for certain arithmetic progressions. This is joint work with M. Ram Murty.