

Abstract of paper [1].

Under the assumption of the Riemann Hypothesis, we prove explicit quantitative relations between hypothetical error terms in the asymptotic formulae for truncated mean-square average of exponential sums over primes and in the mean-square of primes in short intervals. We also remark that such relations are connected with a more precise form of Montgomery's pair-correlation conjecture.

References

- [1] A. Languasco and A. Zaccagnini. Explicit relations between pair correlation of zeros and exponential sums over primes. *Functiones & Approximatio Commentarii Mathematici*, 51(2):379–391, 2014.