PRIME NUMBERS IN INTERVALS STARTING
AT A FIXED POWER OF THE INTEGERS

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Abstract

The best known results about the distribution of prime numbers in short intervals imply that all intervals \([n, n+H] \subseteq [N, 2N]\) contain the expected number of primes for \(H \geq N^{7/12}\) and almost all intervals \([n, n+H] \subseteq [N, 2N]\) contain the expected number of primes for \(H \geq N^{1/6}\). This paper is concerned with the distribution of prime numbers in intervals of type \([n^\alpha, n^\alpha+H]\), with \(\alpha > 1\), as a natural generalization of the afore-mentioned results.

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