

## Goldbach numbers in short intervals

LASSE GRIMMELT

**Abstract.** We decrease the length of the shortest interval for which almost all even integers in it are the sum of two primes. This is achieved by applying a new perspective of the circle method which builds on introducing a nonnegative model for minorants. Compared to Harman's previous record, our approach uses minorants more efficiently and not only allows a shorter interval but also simplifies the treatment.

**Mathematics Subject Classification (2020):** 11P32 (primary); 11P55, 11N36 (secondaty).