On the density of natural numbers not represented by sums of cubes of primes.

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Let $\mathcal{N}$ be the set of all the odd natural numbers n such that $7 \nmid n$ and $n \not\equiv 0, \pm 2 \pmod 9$. Then it is conjectured that every sufficiently large $n \in \mathcal{N}$ can be written as the sum of five cubes of prime numbers, or, on writing $E(N)$ for the number of $n \in \mathcal{N}$ with $n \leq N$ such that n cannot be written in the aforementioned manner, the conjecture asserts that $E(N) \ll 1$. After Hua estalished a non-trivial upper bound of $E(N)$ for the first time in 1938, the bound was improved several times, and Kumchev showed the currently best estimate $E(N) \ll N^{79/84}$ in 2004. This talk is aimed at reporting a further slight improvement of the latter bound. Similar conclusions concerning sums of six, seven and eight cubes of primes will be also mentioned.