

(?)

coins - crucku?

Theorem 1 (Correctness and time complexity)

For any constant $\varepsilon > 0$ and any $\lambda < 1 - H(\frac{\varepsilon}{2})$

N.N. solves the $(m, \varepsilon, \lambda)$ -NN problem w.o.p.

(over both the coins of the algorithm
and the random choice of the input)

in time $\tilde{O}(2^{(y+\varepsilon)m})$ with

$$y := (1 - \varepsilon)(1 - H(z)), \quad z = \frac{H^{-1}(1 - \lambda) - \frac{\varepsilon}{2}}{1 - \varepsilon}$$

Corollary 1 In the case of a list size $|L| = |R|$
that is polynomial in m , we obtain a complexity

exponent $\lim_{\lambda \rightarrow 0} \frac{y}{\lambda} = \frac{1}{1 - \varepsilon}$, i.e. our complexity

$$\tilde{O}\left(|L|^{\frac{1}{1 - \varepsilon}}\right)$$

Замеч. Хотим $\frac{y}{\lambda} < 2$

т.е. $\frac{1}{1 - \varepsilon} < 2$

$$h = H^{-1}(1 - \lambda)$$

$$\text{т.е. } 0 \leq h \leq \frac{1}{2}$$