

$$\begin{array}{l} \mathcal{C} \rightarrow \\ \{0,1\}^* \cup \\ \{\perp\} \\ \mathcal{C} \rightarrow \\ \{0,1\}^* \cup \\ \{\perp\} \\ \mathcal{X} \in \\ \Omega \geq \\ s \geq \\ 0 \end{array}$$

$$\Pr\left[\left|C(x)\right|\leq \log\left|\Omega\right|-s\right]\leq 2^{-s}.$$

$$\begin{array}{l} |\perp| = \\ \infty \\ C(x) \leq \\ \log |\Omega| - \\ s \\ C(x) \\ k = \\ \log |\Omega| - \\ s \\ C \\ |\Omega| \\ 2^k \\ k \\ C(x) \\ k \\ 2^k \end{array} = \frac{2^{\log |\Omega| - s}}{|\Omega|} = \frac{1}{2^s}.$$

$$\begin{array}{l} per- \\ nu- \\ ta- \\ tion \\ \sigma \\ n \\ \sigma = (\sigma(1), \ldots, \sigma(n)). \end{array}$$

$$\begin{array}{l} \{1,\ldots,n\} \\ n! \\ (max) \\ record \\ n \\ \sigma(i) \\ 1 \leq \\ i \leq \\ n \\ \sigma(i) = \\ \max\{\sigma(1),\ldots,\sigma(i- \\ 1)\} \\ \sigma(i) \\ 1/i \\ H_n = \sum_{i=1}^n \frac{1}{i} = \ln n + O(1), \end{array}$$

$$\begin{array}{l} n^{\text{th}} \\ et? \\ \sigma(1) \\ \sigma \\ \sigma(1) \\ \sigma(1) \\ \sigma \\ k \\ \sigma(1) \\ S \\ S(n) = nn-1kk!\cdot S(n-k-1), \\ S(0) = \\ 1 \\ S(1) = \\ 1 \\ S(n) = \\ p! \\ n \\ c \log n \\ 2^{-c(1-H(1/c))\log n+O(\log \log n)}, \end{array}$$

$$\begin{array}{l} \zeta > \\ \sigma \\ p! \\ t > \\ c \log n \\ r_1 < \\ r_2 < \\ \vdots < \\ r_t < \end{array}$$