

$$\text{NIST} = \sum_{n=1}^5 \left\{ \sum_{\substack{\text{all } w_1 \dots, w_n \\ \text{that co-occur}}} \text{Info}(w_1 \dots w_n) / \sum_{\substack{\text{all } w_1 \dots w_n \\ \text{in output}}} 1 \right\} \cdot \exp \left(\beta \log^2 \left(\min \left(\frac{L_{\text{sys}}}{L_{\text{ref}}}, 1 \right) \right) \right)$$

$$\text{Info}(w_1 \dots w_n) = \log_2 \left(\frac{\# \text{ of occurrences } w_1 \dots w_{n-1}}{\# \text{ of occurrences } w_1 \dots w_n} \right)$$