

Surjectivity upper bound

$$Q(\text{SURJ}) = \tilde{O}(n^{3/4})$$

Intuition and ideas

Surjectivity lower bound

$$Q(\text{SURJ}) = \tilde{\Omega}(n^{3/4})$$

Common
proof
strategy

k -junta testing

$$Q(\text{Junta}_k) = \tilde{\Omega}(\sqrt{k})$$

k -distinctness

$$Q(\text{Dist}_k) = \tilde{\Omega}(n^{\frac{3}{4} - \frac{1}{2k}})$$

Statistical distance

$$Q(\text{SDU}) = \tilde{\Omega}(\sqrt{n})$$

Image size testing

$$Q(\text{IST}) = \tilde{\Omega}(\sqrt{n})$$

Reduction

Shannon entropy

$$Q(\text{Entropy}) = \tilde{\Omega}(\sqrt{n})$$

Reduction
Reduction