

Successive Rejection Algorithm

- Intuitive idea: Best arm is never rejected as
- $\bar{X}_t(t) \geq \mu_1 - \alpha_t$
- $\bar{X}_a(t) \leq \mu_a + \alpha_t$
- So $\bar{X}_a(t) - \bar{X}_t(t) \leq 2\alpha_t - (\mu_1 - \mu_a)$

Successive Rejection Algorithm

- Samples needed $K\mathcal{O}\left(\log(1/\delta) \sum_a \frac{1}{(\mu_{\max} - \mu_a)^2}\right)$
- Linear in the number arms.
- Increases as δ is closer to 1
- Increases when arms are hard to distinguish i.e. $\Delta_a := \mu_{\max} - \mu_a$ is small