Successive Rejection Algorithm

- Samples needed $K\mathcal{O}\left(\log(1/\delta)\sum_a \dfrac{1}{(\mu_{\max} - \mu_a)^2}\right)$

- 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

Recommender System

- A RS can recommend specific movies [Netflix has 3600 movies (vs 14 genres)]

- Users arrive at random and the RS observe some partial information about the user (e.g. movies watched, geographical location, personal information, etc.) so-called contextual information

- The RS recommends a movie to the user

- The feedback is whether the user watched and liked the movie or not

- Objective: Design a RS that maximizes the number of movies watched