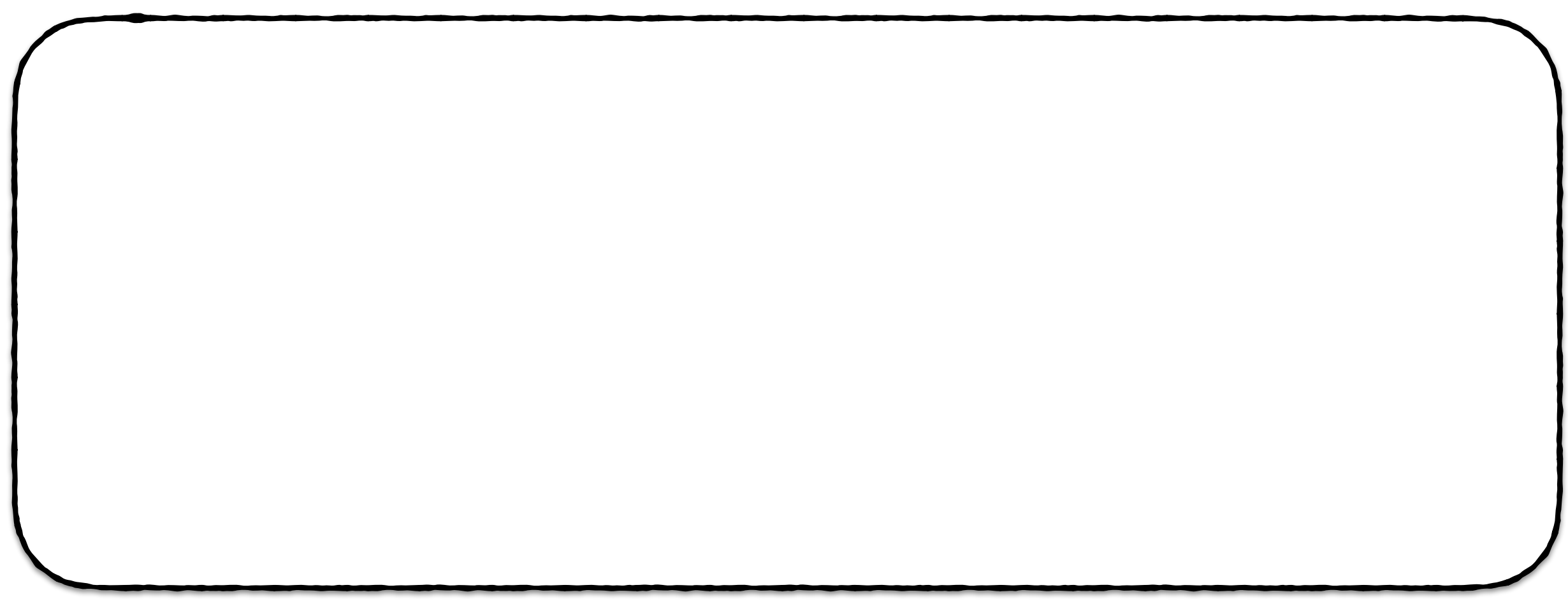




**“Theorem”: works great, if you run for exponentially long.**

PINQ: Privacy Integrated Queries



Let  $M(\mathbf{A})$ : repeat until happy ...

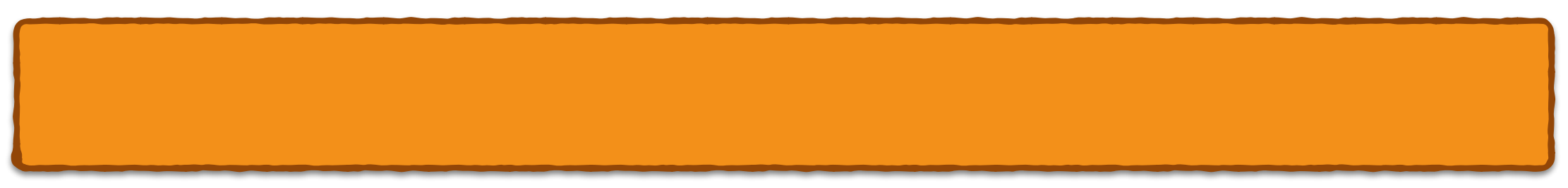
1. Use the exp mech to pick a PINQ program  $\mathbf{p}$ ,
2. Evaluate  $\mathbf{p}$  on the the actual data  $\mathbf{A}$ . (call it  $\mathbf{m}$ ).
3. Update estimated distribution  $\mathbf{D}$ , using MCMC.

$$\text{score}(A, p) \equiv -\log \text{Pr}(p(A) \mid D).$$

**“Practice”: works great, if you run for exponentially long.**

**Caution: Scientists at work\***



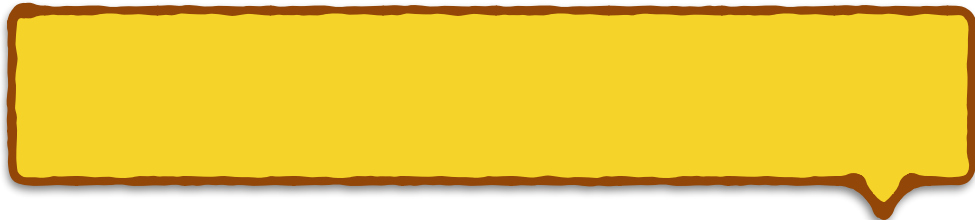




$$\text{score}(A, p) \equiv -\log \text{Pr}(p(A) | D).$$



Counting, Choosing, MOVEMENT, PINQ



**Caution: Scientists at work\***

**Caution: Scientists at work\***