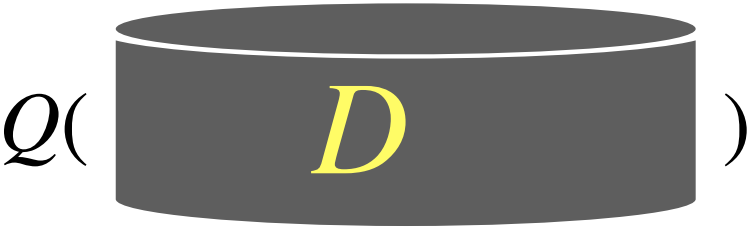


Bundled Query Processing



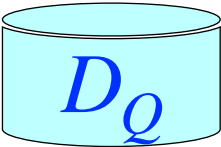


A light blue cylinder with a black outline. The text D_q is written in blue on the side of the cylinder.

D_q

Q







accessed data

- ▶ D_Q is **bounded** (independent of D)
- ▶ the **bound** is known before execution
- ▶ $Q(D)$ can be **restored** by computing $Q(D_Q)$



determined by available resources

Bounded Query Processing



determined by **available resources**

- ▶ D_Q is **bounded** (independent of D)
- ▶ the **bound** is known before execution
- ▶ $Q(D)$ can be **restored** by computing $Q(D_Q)$

Outline: resource-bounded query evaluation

I. Bounded Query Processing on DBMS

- ▶ **Theory**: bounded evaluation
- ▶ **Framework**: bounded approximation
- ▶ **System**: BEAS

II. Bounded Query Processing on Key-value Stores

- ▶ a **data model** for bounded evaluation on key-value stores