**Motivation**

- **Joins with low selectivity**
- **Bloom Filters are flexible and lightweight structures**
- **Hash tables require multiple passes, concurrency control and more space**

**Bloom Filter Join**

**Build:**
Divide R into chunks
Construct a bloom filter for each chunk

**Probe Join:**
For each value in S:
Probe all Bloom filters and perform join for qualifying chunks

**Evaluation**

**Bloom filter internals**

- Comparing Bloom Filters
- Using radix hashes improved performance without impacting accuracy

**BFJ in modern hardware**

- Bloom filter joins in NUMA
- As opposed to hash joins, Bloom filter joins scale linearly in NUMA environments

**Preliminary Results**

- BFJ perform comparably to hash joins for smaller size of S
- For higher selectivity the performance of BFJ degrade very fast

**Performance comparison of various implementations of BFJs vs. number of BF**