Accordion: Better Memory Organization for LSM Key-Value Stores
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**LSM Challenges**

- **Accordion** - A Novel Write Path Algorithm
- Frequent compactions
- Disk compactions ↓, Write throughput ↑
- Write amplification, disk wear
- In-memory compaction (IMC): write amplification ↓, wear ↓
- Fragmented memory layout, GC overhead
  - Flat memory: Memory footprint ↓, GC ↓, cacheline friendly

**Write Throughput**

- Basic IMC
- Adaptive IMC (with throttling)
- Eager IMC

**Serialized Write Throughput**

- none
- basic
- adaptive 0.50
- adaptive 0.35
- adaptive 0.20

**Write Amplification**

- SSD-ziptan
- HDD-ziptan

**Eager Write Throughput**

- A=0.02, S=5
- A=0.25, S=2