

Agenda

1. Welcome, syllabus, database architectures, hardware (storage, processing), analytics (dashboards, data mining), deployment (cloud, real-time situational awareness), contents & formats (multi-dimensional, unstructured) – Goetz
2. Indexing basics: B-trees, operations & utilities, advanced keys – Goetz
3. Robust & adaptive techniques, measuring robustness; indexing and query execution – Harumi
4. B-tree concurrency control and recovery (two short surveys) – Goetz
5. Query execution: iterators, access methods, sort, join & aggregation algorithms – Goetz
6. Query execution: implementation, parallelism, distributed queries – Wey
7. Versions, snapshots, time travel, multi-version concurrency control – Goetz
8. Online operations – Wey
9. High availability, cloud computing – Wey
10. Workload management, scheduling, resource & memory management – Wey
11. Hike in the woods...
12. Compression, column storage, zone filters, bitmap indexes, etc. – Goetz
13. Query compilation: syntax-algebra-plans, plan space, architecture – Thomas N.
14. Query compilation: cardinality estimation, cost calculation – Thomas N.
15. Query compilation: plan search, plan selection, plan compilation – Thomas N.
16. On demand, ...
17. On demand...
18. On demand...