Chair III: Database Systems
Chair XXV: Data Science and Engineering
Department of Informatics
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HyPerInsight: Data Exploration Deep Inside HyPer

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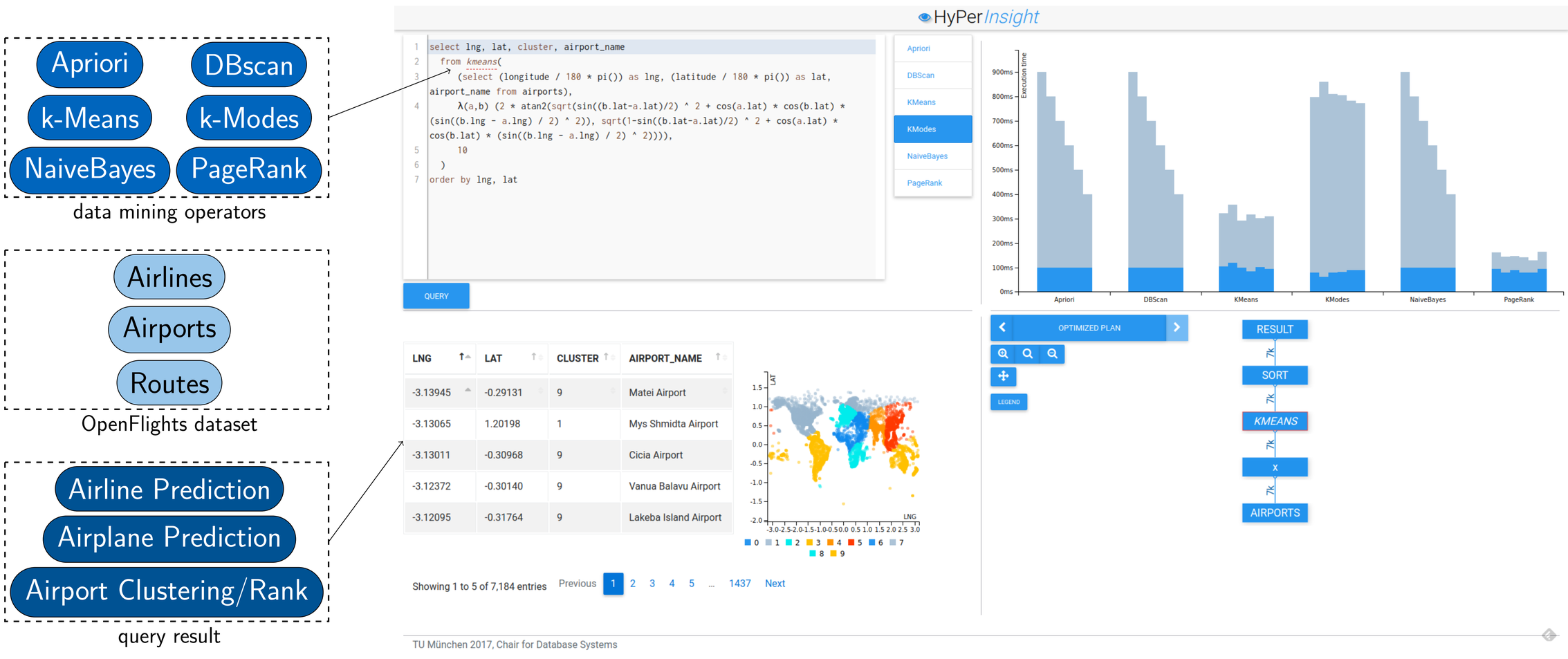
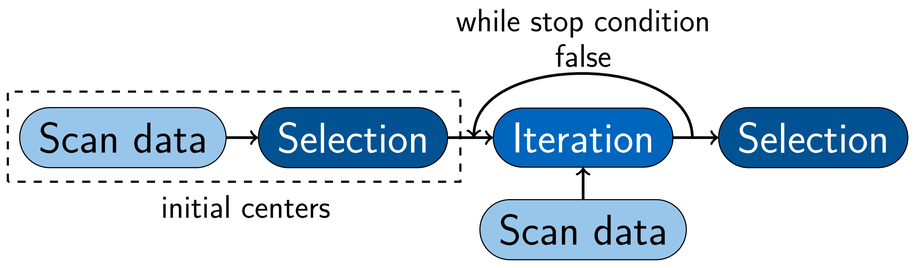
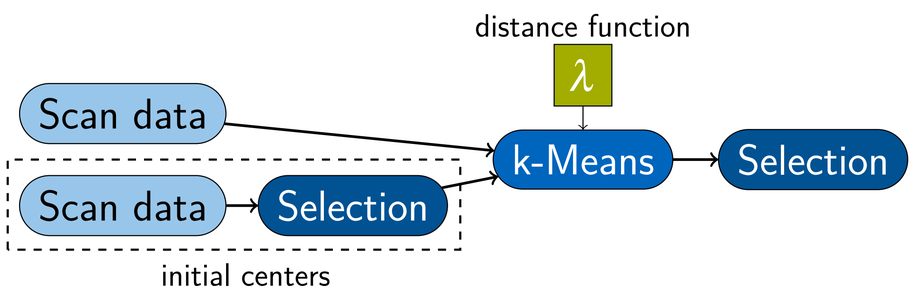


SQL

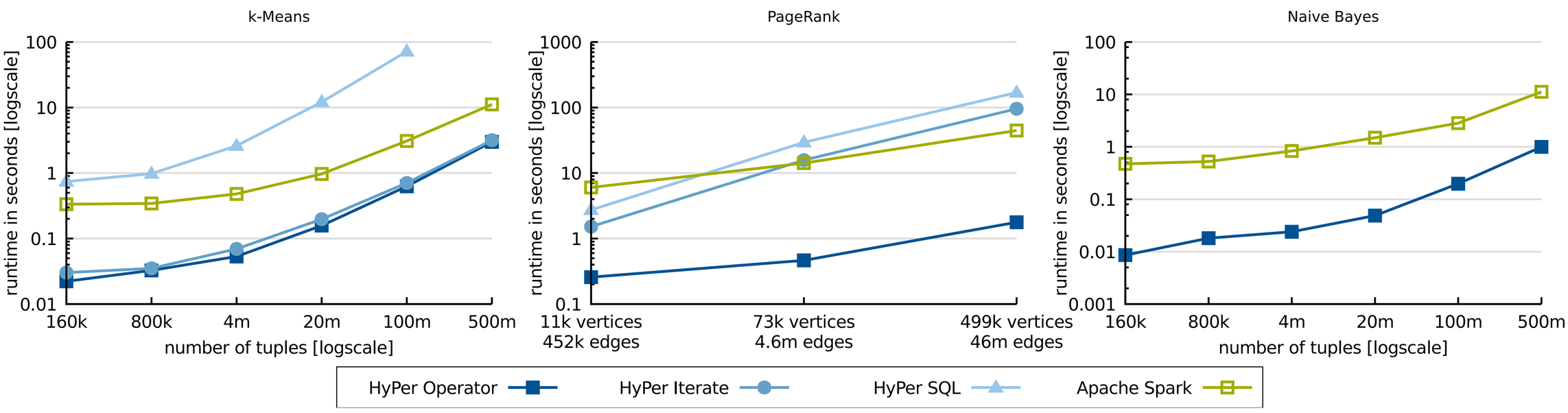


+ Leverages sophisticated SQL optimizer
+ Reduces memory footprint compared to recursive CTEs
– User has to implement complex algorithms
– Invariants and assumptions are opaque to the optimizer
– Non-standard SQL extension

Operators + Lambdas



+ Seamless integration with SQL
+ Fully optimizable
+ Allows re-using of large parts of the query execution
– Requires deep knowledge of database implementation
– Every variant and parametrization has to be implemented
This is solved by introducing lambda functions



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