

A quick taste:

Explaining outputs in modern data analytics

[VLDB2016]

Declarative Datalog debugging for mere mortals
[S. Köhler et al.]

“Describe provenance/lineage as Datalog queries”

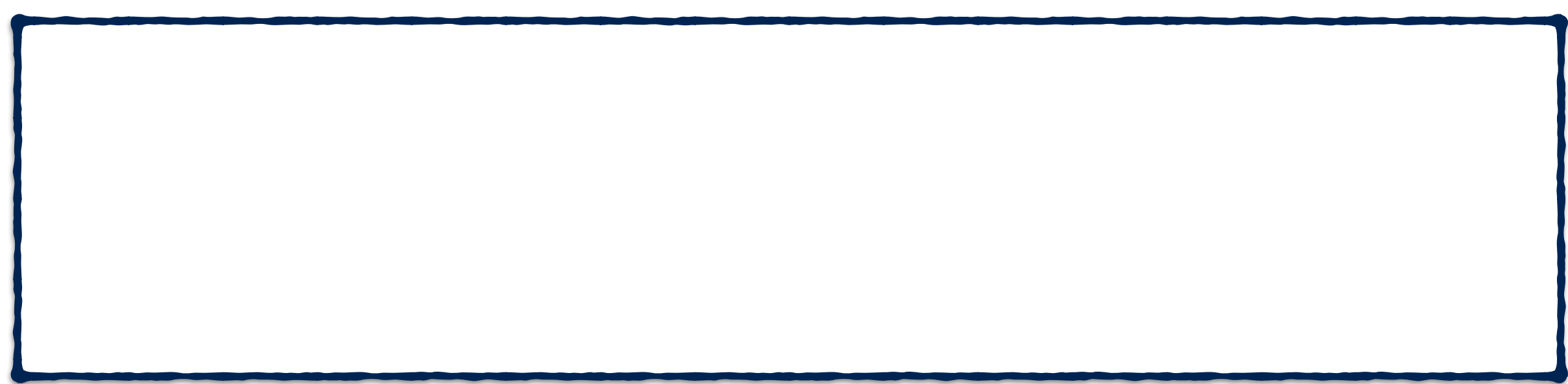
Replace “Datalog” with Differential Dataflow:

1. More expressive (e.g. Map/Reduce/Aggr),
2. Incrementally maintained.

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Explaining outputs in model data analytics

[NVLDB2016]



Derivative Data debugging for mortals

[S. Köhler et al.]

'Describe/linear as Data queries'

Replace 'Datalog' with Differential Dataflow:

1. More expressive (e.g. Map/Reduce/Aggr),

2. incrementally maintained.

Explanations:

For a target subset of the observed output,

identify a subset of the input such that:

compute yields output containing the subset.