



## Filtering Algorithms and Implementation for Very Fast Publish/Subscribe Systems

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## Agenda

- New Ideas
- Limitation
- Comments and Remarks
- Directions of Further Research



## New Ideas

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- Main-memory algorithm is cache conscious
- Subscription clustering
  - The access predicate is a conjunction of simple predicates



## Limitation

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- The subscription language is limited
- Tradeoff between the expressiveness of the subscription language and the cost of the matching algorithm
- Requirements for an expressive subscription language
  - Changes and degrees of change in value
    - Increase by  $x\%$
  - Points in time
    - Events between 4 and 6 p.m.
  - Approximate relation
    - Cheap products



## Quality of presentation

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- Sufficient background information
- Definitions used are not highlighted
- Examples before definitions



## Cluster-matching algorithm

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- Restrictive example
  - Subscriptions with only 3 predicates
- Cache-conscious
  - LOOKAHEAD



## Access Predicates

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- Conjunction of equality predicates
  - Argument?
- Subscriptions without equality predicates



## Other Comments...

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- Subscription deletions
- Threshold values for maintenance algorithm



## Directions of Further Research

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- Analysis for access predicate that contains inequality predicates
- Subscription Language Expressiveness vs. Matching Algorithm Time Cost



Your comments...

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