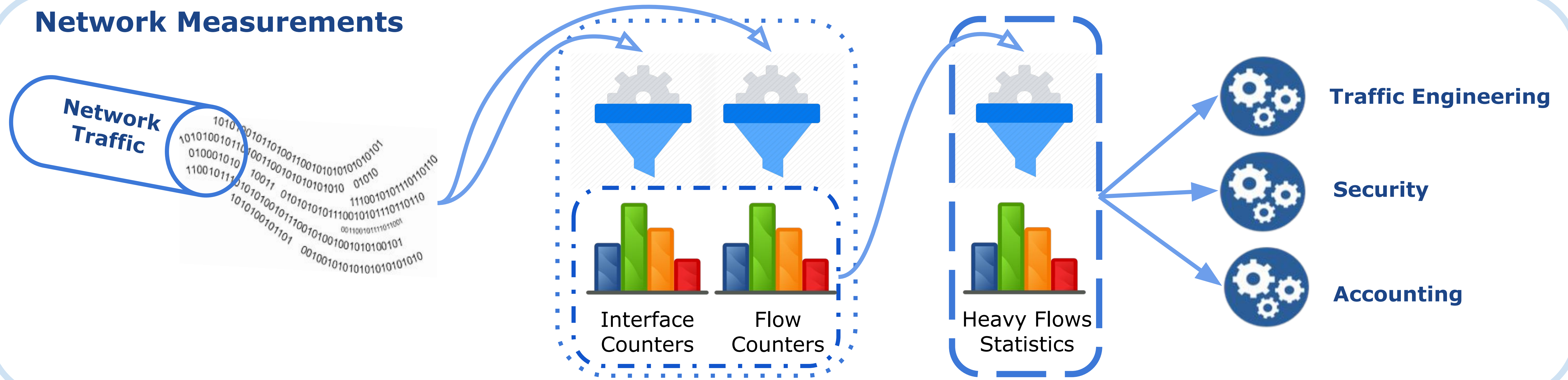


Revealing Hidden Hierarchical Heavy Hitters in network traffic

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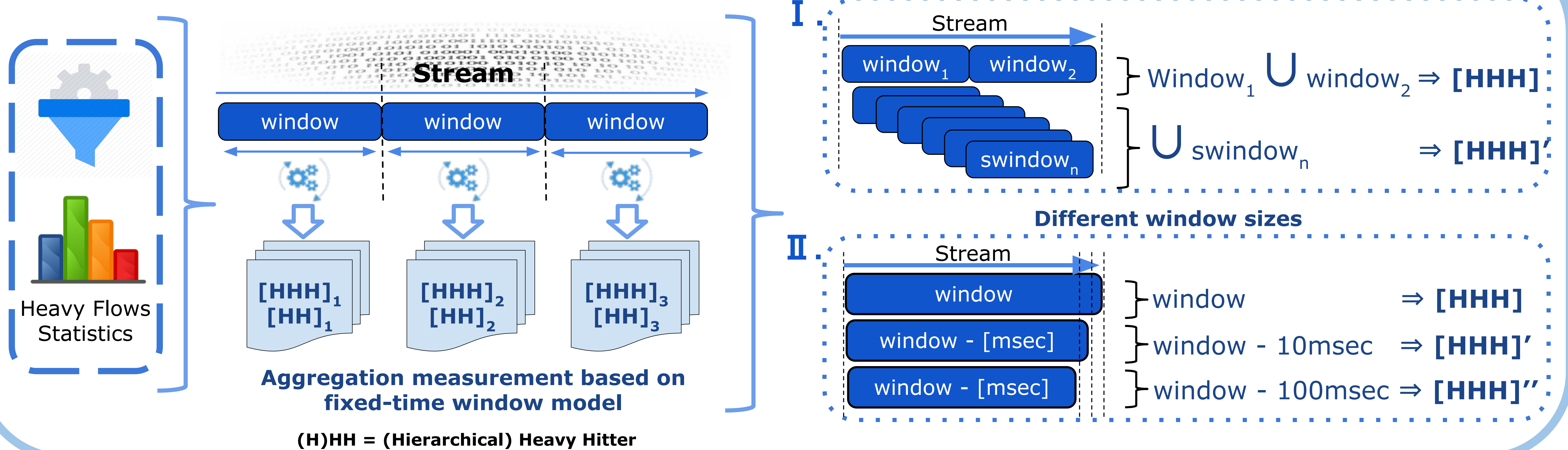
University of Cambridge[✦], Queen Mary University of London[†], University of Roma Tor Vergata[‡], NEC Laboratories Europe[‡]

Network Measurements



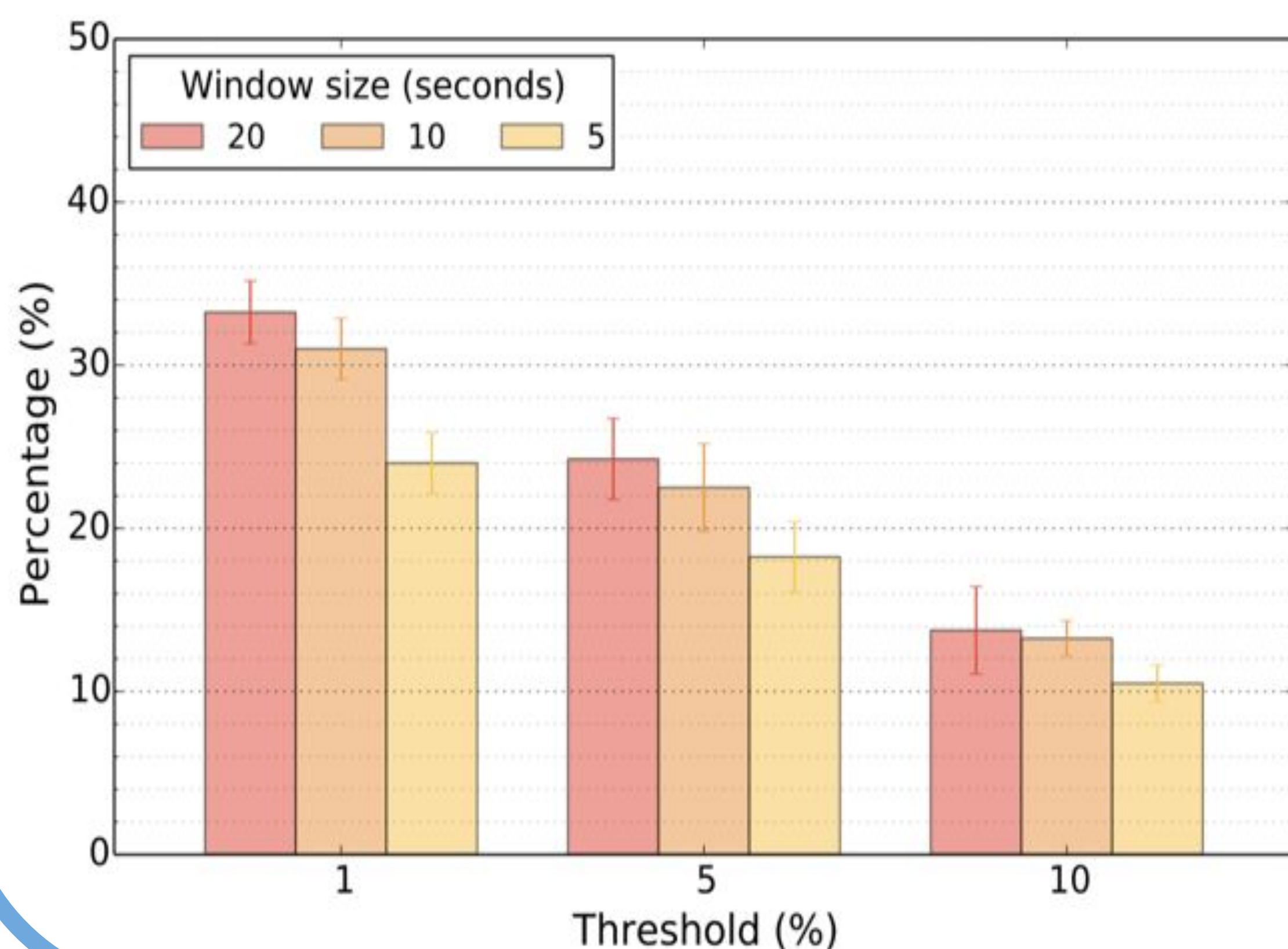
How much can you trust your heavy flow detection algorithm?

Window-based Aggregation

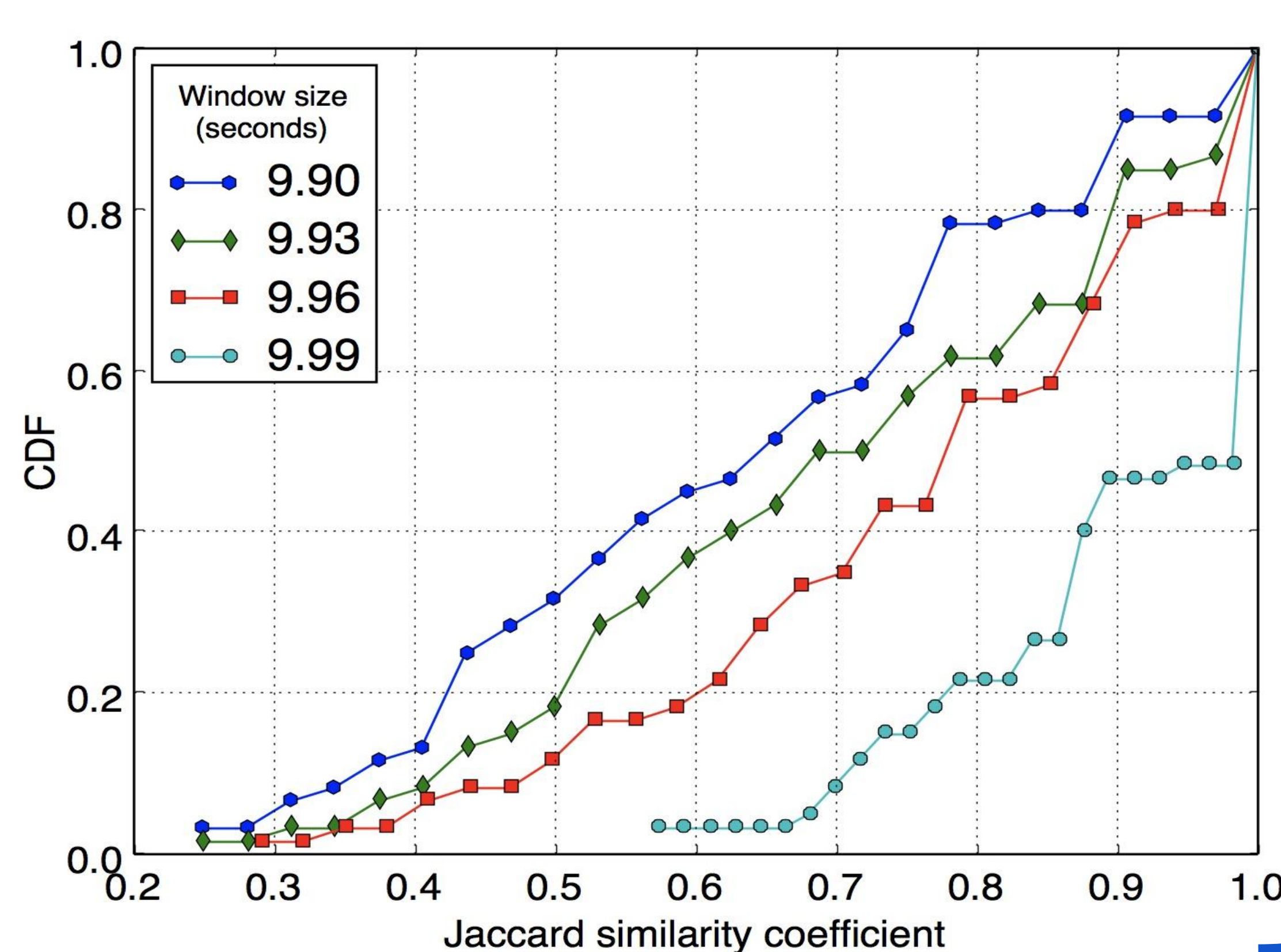


Analysis -- Hierarchical Heavy Hitters

I. Unveiling Hidden HHHs [HHH] ≠ [HHH]'



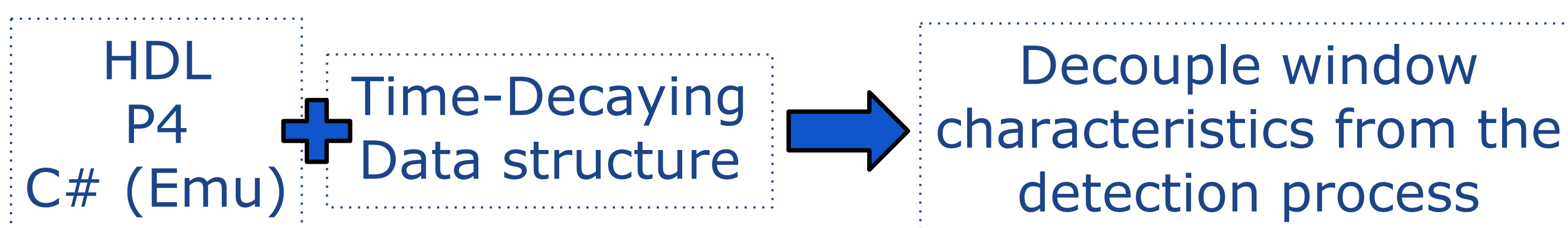
II. Micro variations in window sizes [HHH] ≠ [HHH]', [HHH]''



Window's characteristics are interdependent with the aggregation process and its results.

- I.** Disjoint vs sliding windows
10%-34% Hidden HHH
- II.** Micro variations in window sizes lead to
25% Hidden HHH for 70% of the cases

What is next?



Open question(?)

If there is not concept of discrete time in the detection process, do we need to reconsider the **definition** of **Heavy Hitter**?