"Mathematizing" the latency

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Latency

Formal verification made easy and fast – Linux Plumbers Conference 2019
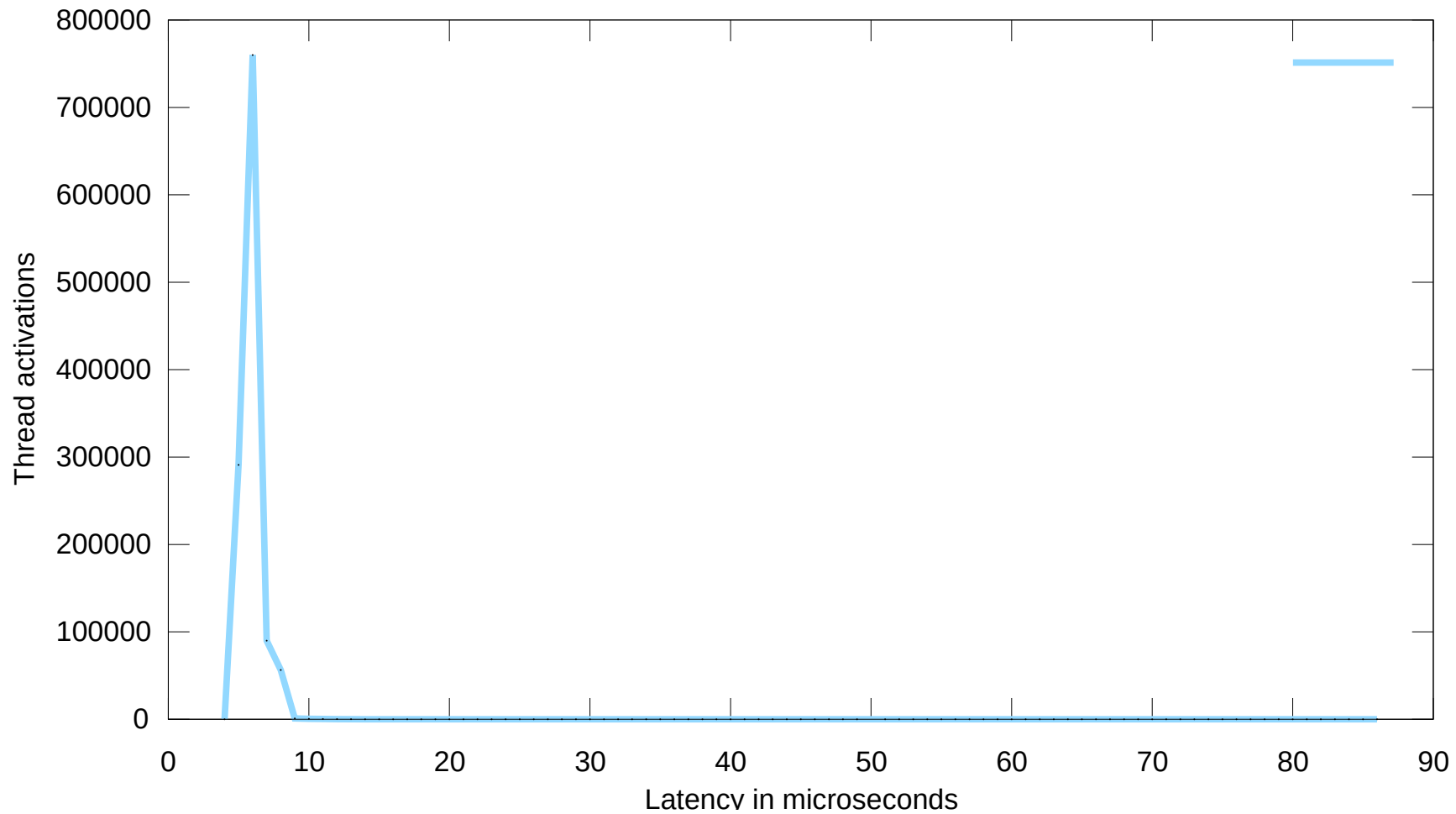
Latency is opaque

- It is not clear to everyone how it is composed
  - Yeah, very experienced kernel dev knows…
- This turns hard the application of any probabilistic WCET
- But we know it is composed of many code paths
  - Somehow independent

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How can we improve this?

- Break the latency into independent variables
- Measure them
  - Trying to get the worst case behavior of each variable
- Somehow sum them
  - Finding the possible worst case latency
    - That could happen (but not necessarily happened)

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Thank you!

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