

# Sift: A MAC protocol for Event-Driven Wireless Sensor Networks

Kyle Jamieson, Hari Balakrishnan, Y. C. Tay.

Third European Workshop on Wireless Sensor Networks, EWSN 2006, February 2006. Springer.

Presented by: Maria Calle

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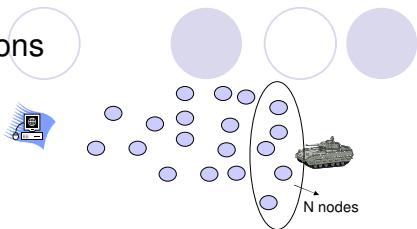
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## Motivations



- “Spatially Correlated Contention”
- Long delay for all packets and maybe just [the first R](#) reports needed quickly
- Node density may change
- CSMA protocols use [Binary Exponential Backoff](#) with uniform probability distribution

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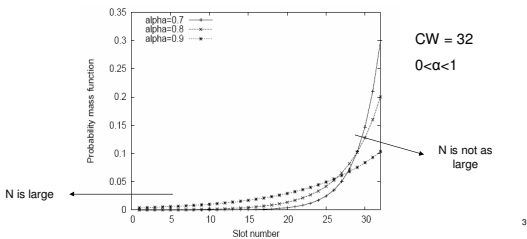
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## Sift Description



$p_r$  = probability of winning slot  $r$

$$p_r = \frac{(1-\alpha)\alpha^{CW}}{1-\alpha^{CW}} \cdot \alpha^{-r} \quad \text{for } r = 1, \dots, CW,$$



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