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Title
Voronoi Scoping in Sensor Networks

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Authors
Henri Dubois Ferriere
Lewis Girod
Deborah Estrin

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**Problem Description:** Global flooding from each sink is redundant and costly

**Proposed Solution:** Each node only rebroadcasts flood packets coming from closest sink.

**Voronoi Scoping Rule**
- A node only reforward a flood packet if the packet came from the closest sink (that this node knows about).
- Properties:
  - Scoping decision entirely distributed (unlike TTL scoping).
  - If sink comes up or sink dies: scopes adaptively grow/shrink, other sinks do not need to keep track.
  - Decrease flooding overhead.
  - Can retain some overlap between clusters by trivial modification to above rule.
  - Fits in with classical distributed flooding/tree-construction mechanisms.
  - Flooding overhead remains constant independently of # of sinks!

**Experiment notes**
- Used LECS ceiling array, 55 Berkeley motes.
- Protocol implemented as modification of One-Phase Pull Diffusion (Heidemann et al).
- Used existing diffusion implementation from ISI (F. Silva)
- 1, 2, 3, 4 sinks.
- Each sink floods every 120 seconds.
- Each node generates data packet every 60 seconds.