

Pessimistic or “opportunistic” about MobiOpp research?

Andrew T. Campbell, Dartmouth College
ACM MobiOpp 2010 Panel

The pessimist's view

What defines you?

Your are “out of touch”
and so disconnected!

It's an interesting space but has
no application and commercial
future!

If you can't run streaming video
over the network then why the
hell use it!

You're just a paper machine!

You're only working on this
because NSF/EU have a call
for proposals!

The opportunist's view

Your are “out of touch”
and so disconnected!

Yes, that is right.

It's an interesting space but has
no application and commercial
future!

They said that about the
Internet too bud.

If you can't run streaming video
over it then why the hell use it!

You can.

But the frame rate is slow.

Think of a video frame as
an atomic unit and it works!

You're just a paper machine!

They said that about MANET too!

You're only working on this
because NSF/EU have a call
for proposals!

NO, that is NOT true.

I lied. You're right.

As people we are “opportunistic”

Everything is opportunistic.

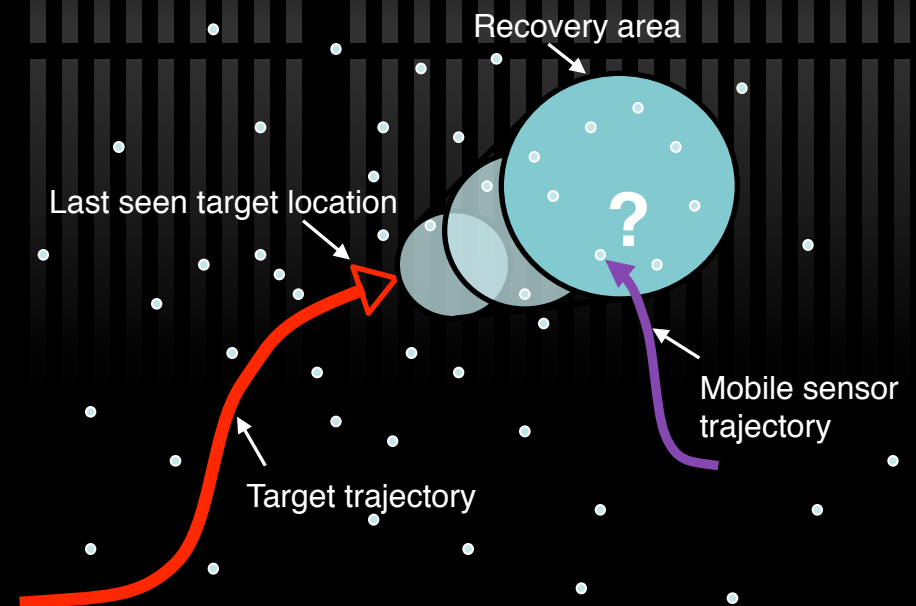
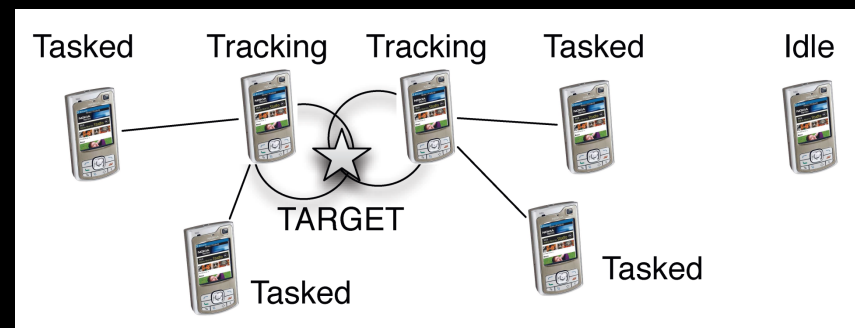
Opportunistic sensing



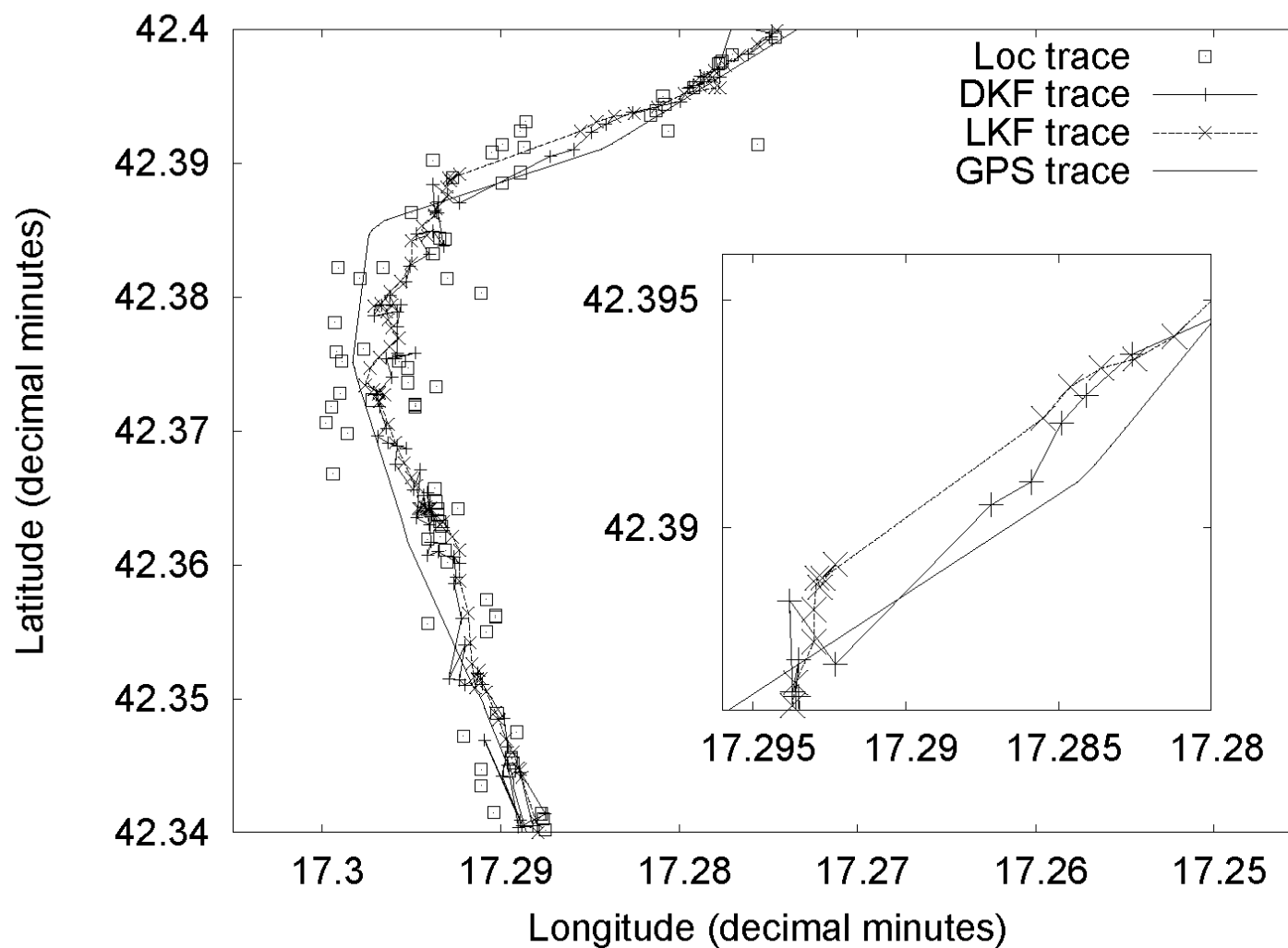
MetroTrack

Tasking and Recovery

- Information-driven Tasking
 - Nodes that have sensed the event forwards the task their one-hop neighbors (local decision without a leader)
- Prediction-based Recovery
 - Distributed Kalman Filter predicts the lost target's location and decide the recovery region (location + error margin)
 - Geographic forwarding (geocast) without a leader



Target location trace





Thanks